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UNIVERSITY OF ILLINOIS  
13 JUN 1914

U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

NEW ENGLAND SECTION

FEBRUARY, 1914

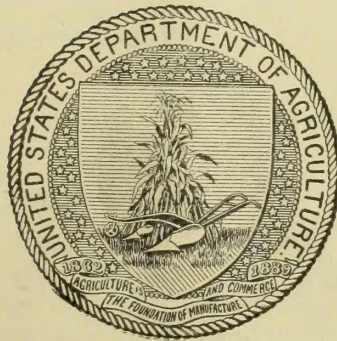
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BY

JOHN W. SMITH

DISTRICT FORECASTER AND SECTION DIRECTOR

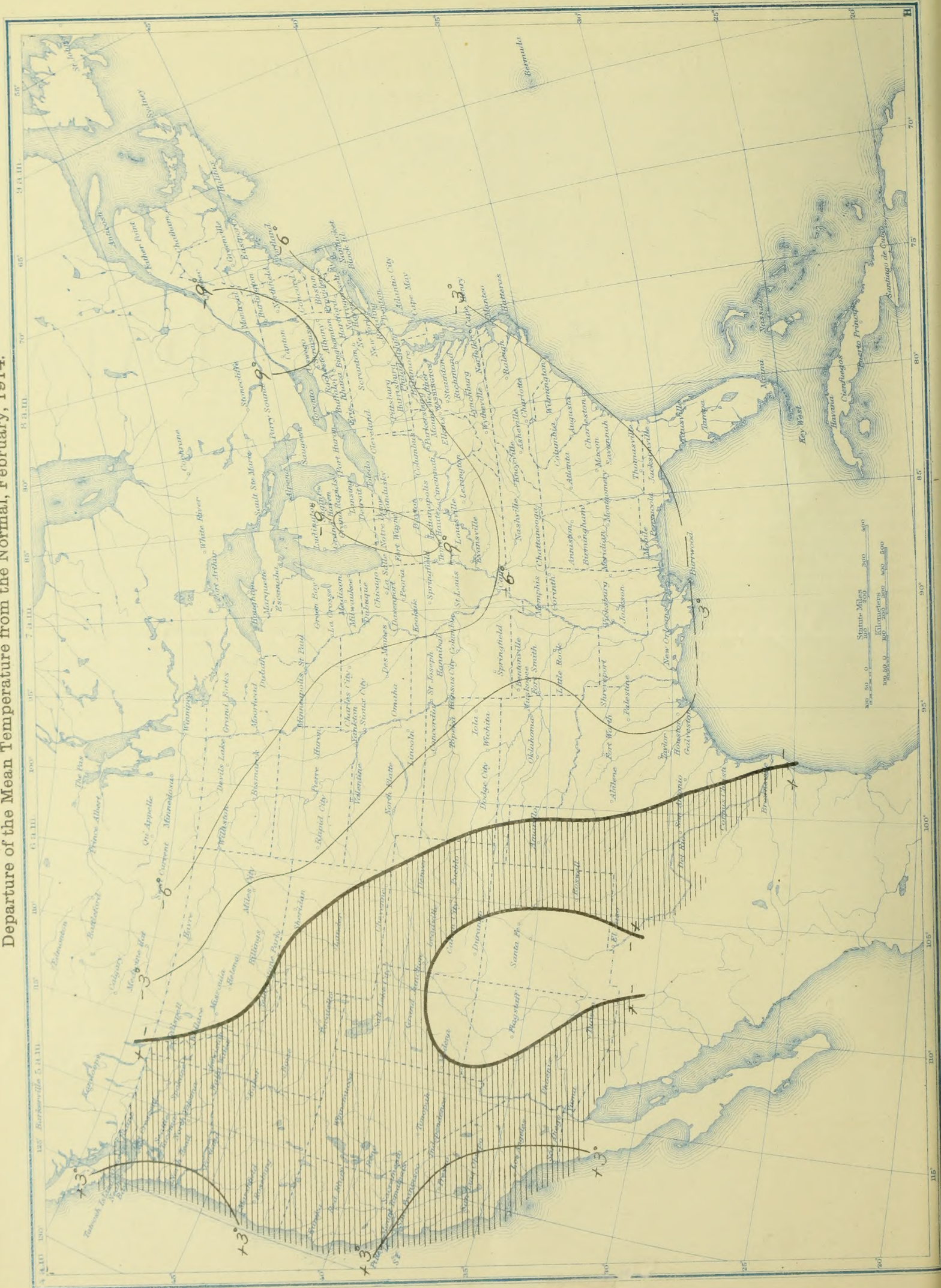
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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
MARCH 24, 1914 ©



Departure of the Mean Temperature from the Normal, February, 1914.





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

VOL. XXVI.

BOSTON, MASS., FEBRUARY, 1914.

No. 2.

## GENERAL SUMMARY.

The month, as a whole, was unusually cold, the average temperature being the lowest of any February, with two exceptions, within the records of the section, extending back to 1888. These were in 1904, when the average temperature of the month was 16.6°, and in 1907, with an average of 15.9°.

The temperature during the first week was somewhat above the average for the season. Following this, however, there prevailed a period of extreme cold until the last two days of the month, which probably equaled, if it did not exceed in length, any previous record of unbroken low temperature in this section. At some stations of long record the month was colder than any previous February, and at others the average minimum temperature was the lowest of record. At Provincetown, Mass., the minimum temperature of -8°, on the 12th, was the lowest that has occurred at that place since 1857, and in some sections of the town the record of that year, -12°, was reached.

The snowfall was somewhat greater than usual, and accumulated to depths of 3 to 5 feet in the northern woods of the section. The heaviest snowstorm was on the 14th, when 10 inches or more fell over the greater portion of the section, except in the extreme northwestern portion of Vermont, where there was only a few inches. In some portions of the section more than twenty inches fell during this storm. The other snowstorms of the month were of light to moderate amounts. The precipitation of the month was nearly all confined to the first seven days, and from the 14th to the 19th, only scattered small amounts occurring from the 8th to the 13th, and from the 30th to the 29th.

## PRESSURE.

The mean sea-level pressure for the section, 15 stations reporting, 30.11 inches, was 0.06 of an inch above the normal for the month.

The highest monthly mean was 30.16 inches, at Burlington, Vt.

The lowest monthly mean was 30.04 inches, at Eastport, Me.

The highest recorded was 30.83 inches, at Burlington, Vt., on the 13th.

The lowest recorded was 29.02 inches, at Eastport, Me., on the 14th.

The monthly range for the section was 1.81 inches.

## TEMPERATURE.

The monthly mean for the section was 16.8°, and 5.6° below the normal, based on stations having ten or more years' record.

The monthly means by states: Maine, 10.6°; New Hampshire, 14.9°; Vermont, 10.6°; Massachusetts, 21.5; Rhode Island, 24.1°; Connecticut, 20.8°.

The highest monthly mean was 28.2°, at Nantucket, Mass.

The lowest monthly mean was 0.4°, at Van Buren, Me.

The highest temperature recorded was 58°, at Cornish, Me., on the 28th.

The lowest temperature recorded was -36°, at Presque Isle, Me., on the 11th.

The greatest local monthly range was 87°, at Hyde Park, Vt.

The least local monthly range was 52°, at Block Island, R. I.

The greatest daily range was 58°, at Rutland, Mass., on the 13th.

## HUMIDITY.

The monthly average for the section, 15 stations reporting, was 70 per cent, and 2 per cent below the normal for the month.

The highest monthly average was 86 per cent, at Northfield, Vt. The lowest monthly average was 58 per cent, at New Haven, Conn.

## PRECIPITATION.

The average for the section, 2.48 inches, was 1.09 inches below the normal, based on stations having ten or more years' record.

Average precipitation by states: Maine, 1.90 inches; New Hampshire, 1.80 inches; Vermont, 1.40 inches; Massachusetts, 3.38 inches; Rhode Island, 3.13; Connecticut, 2.94.

The greatest monthly amount was 4.94 inches, at Westboro, Mass.

The least monthly amount was 0.41 of an inch, at Burlington, Vt.

The greatest amount in 24 hours was 2.64 inches, at Lowell, Mass., on the 14th.

The average number of days with .01 inch or more of precipitation was 7.

The average snowfall for the section was 19.5 inches.

The average snowfall by states: Maine, 17.5 inches; New Hampshire, 21.6 inches; Vermont, 18.1 inches; Massachusetts, 21.9 inches; Rhode Island, 17.4 inches; Connecticut, 20.5 inches.

The greatest snowfall in any 24 hours was 30 inches at Woodstock, Vt., on the 14th.

## WIND.

The prevailing direction of the wind was from the northwest.

The average monthly wind movement for the section, 15 stations reporting, was 8,894 miles.

The greatest monthly wind movement was 16,407 miles, at Block Island, R. I.

The least monthly wind movement was 4,589 miles, at Concord, N. H.

The greatest maximum velocity recorded was 72 miles per hour from the northwest, on the 16th, at Block Island, R. I.

## SUNSHINE AND CLOUDINESS.

The average number of clear days was 15; partly cloudy, 6; cloudy, 7.

The average per cent of possible sunshine, 10 stations reporting, was 62 per cent, which was 6 per cent above the normal for the month.

The greatest per cent of the possible amount was 72 per cent, at Portland, Me.

The least per cent of the possible amount was 53 per cent, at Block Island, R. I.

## MISCELLANEOUS PHENOMENA.

*Auroras*.—Concord, Mass., 21.

*Earthquakes*.—Cavendish, Enosburg Falls, St. Johnsbury, Vt., Fitchburg, Mass., 10th, 1.30 p. m.

*Halos, Lunar*.—Bethlehem, N. H., 3; Blue Hill, Mass., 10, 11, 16; Boston, 10; Block Island, R. I., 4; Hartford, Conn., 5, 10; New Haven, Conn., 2, 5.

*Sleet and Hail*.—Farmington and Rumford, Me., 1; Portland, Me., Bethlehem, Hanover, Newton, N. H.; Northfield, Vt., Springfield, Sterling, Mass., Torrington, Conn., 7; Block Island, Wallum Lake, R. I., Norwalk, Conn., 19; Narragansett Pier, R. I., 6; Bridgeport, New Haven, Conn., 6, 14, 19.

*Halos, Solar*.—Cornish, Me., 3, 13, 21; North Bridgton, Me., 20; Northfield, Vt., 6, 13, 18, 19, 20, 26; Blue Hill, Mass., 5, 10, 13, 17, 20, 21, 23; Boston, Mass., 10, 13, 20, 23; Concord, Mass., 13, 20; Fitchburg, Leominster, Mass., 23; Somers, Mass., Block Island, R. I., 20; Greene, R. I., 13; Hartford, Conn., 13, 20; New Haven, Conn., 13, 17, 20, 23.

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## Climatological Data for February, 1914.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.					Precipitation, in inches.					No. of days—			Observer.			
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.		Partly Cloudy.	Cloudy.	Prevailing direction of wind.
Maine.																				
Bar Harbor §	Hancock	20	28	16.9	-5.7	50	28	-20	18	42	1.89	-2.62	0.85	21.5	6	19	3	6	se.	William Miller.
Cornish	York	778	59	18.0	-3.4	58	28	-25	16	54	1.94	-1.79	1.30	16.5	5	17	5	6	sw.	T. H. West.
Fairport	Washington	53	42	14.8	-6.6	43	7	-23	12	35	2.26	-1.36	0.82	16.8	10	16	6	6	w.	U. S. Weather Bureau.
Farmington	Somerset	90	29	12.4	-5.7	46	23	-25	16	47	1.85	-0.91	1.00	15.0	3					E. F. Parker.
Gardiner §	Franklin	450	17	11.2	-6.3	45	28	-23	12	46	1.81	-1.58	1.15	17.0	6	15	8	5		State Normal School.
Greenville	Kennebec	163	22	13.2	-6.7	48	28	-27	16	56	2.55	-0.91	0.80	23.0	10	20	1	7	nw.	Samuel D. Soule.
Houlton	Piscataquis	1,140	10	5.9		47	28	-29	12	37	1.82	-1.29	1.15	19.2	7					U. S. Weather Bureau.
Lewiston	Aroostook	362	12	7.4		44	28	-29	11	47	0.90	-1.61	0.45	18.0	4	19	4	5	nw.	Bangor & Aroostook RR.
Madison §	Androscoggin	185	40	13.4	-6.5	46	28	-20	12	46	1.93	-2.06	1.23	16.1	5	18	6	4	nw.	Union Water Power Co.
Millinocket	Somerset	257	11	5.3		42	5	-30	16	47	1.32	-1.85	0.92	9.8	3	21	2	5	w.	William Jardine.
North Bridgton	Penobscot	386	11	6.6		46	28	-27	24	44	1.60	-1.47	0.79	15.6	7	19	3	6	w.	Great Northern Paper Co.
Orono §	Cumberland	450	21	16.5	-2.9	51	4	-19	12	42	1.47	-2.25	1.20	16.0	3	16	9	3	nw.	G. E. Chadbourne.
Patten	Penobscot	129	45	11.9	-7.3	45	28	-24	16	50	2.52	-1.20	1.00	22.0	7	20	2	6	nw.	Department of Physics.
Pemaquid	do	550	12	3.0		52	28	-28	18	49	1.50		0.80	15.0	4	14	4	6	ne.	Bangor & Aroostook RR.
Portland	Lincoln		43	17.2	-6.6	50	4	-17	12	27	3.92	+0.27	2.27	19.7	6	17	4	7	n.	Margaret Adams.
Presque Isle	Cumberland	99	43	17.2	-6.6	50	4	-17	12	27	3.92	+0.27	2.27	19.7	6	17	4	7	n.	U. S. Weather Bureau.
Rumford §	Aroostook	510	9	0.4		43	28	-35	17	45	1.45	-1.97	0.97	17.1	5	20	6	2	nw.	E. M. Libby.
Van Buren	Oxford	505	21	11.8	-6.4	43	4	-22	12	40	1.42		0.58	17.6	6	13	9	6	nw.	Charles A. Mixer.
Winslow	Aroostook	510	9	0.4		43	28	-35	17	45	1.45		0.58	17.6	6	13	9	6	nw.	J. M. Thomas.
	Kennebec	90	19	13.2	-5.5	46	28	-24	16	46	1.34	-1.27	0.53	13.5	3	23	1	4	w.	Hollingsworth & Whitney.
New Hampshire.																				
Alstead Center	Cheshire	1,120	10	14.1	-5.7	45	28	-24	12	28	1.31	-2.52	0.87	22.0	5	20	2	6	nw.	Frank Dewing.
Benton	Grafton		5																	State Sanatorium.
Bethlehem	do	1,470	22	9.3	-8.1	47	28	-28	12	36	1.61	-1.28	1.30	15.5	5	17	5	6	w.	Benjamin Tucker.
Concord	Merrimac	350	54	15.6	-8.0	47	4	-18	16	43	1.65	-1.63	0.96	17.6	6	14	7	7	nw.	U. S. Weather Bureau.
Durham §	Stafford	88	19	18.5	-6.2	51	4	-18	12	40	2.21	-1.81	1.05	23.0	5	21	0	7	nw.	Agr. Exp. Station.
Franklin	Merrimac	440	15	16.2	-2.8	50	28	-20	12	46	1.81	-1.20	1.06	19.2	6	18	4	6	nw.	Dr. C. P. Webster.
Grafton	Grafton	863	28	12.8	-5.4	49	28	-26	16	51	1.65	-1.56	1.14	21.0	4	20	4	4	nw.	P. R. Kimball.
Hanover	do	603	80	11.8	-7.3	50	28	-24	16	50	1.72	-0.68	1.40	22.4	7	13	10	5	n.	Dartmouth College.
Keene §	Cheshire	506	29	15.4	-7.2	50	28	-20	16	52	1.72	-1.68	1.00	19.5	7	17	3	8	nw.	Samuel Wadsworth.
Nashua §	Hillsboro	125	29	19.6	-4.4	52	4	-17	16	46	3.01	-1.20	1.44	35.1	8	15	5	8	ne.	C. B. Stevens.
Newton	Rockingham		26	18.0	-6.3	52	4	-19	16	40	1.86	-1.74	0.64	20.0	5	12	11	5	nw.	W. C. Gale.
Plymouth	Grafton	500	26	13.0	-4.9	45	28	-22	18	46	1.23	-2.40	0.80	22.0	6	19	0	9	w.	Hattie G. Trow.
Vermont.																				
Bloomfield	Essex		7	7.2		47	28	-34	16	54	0.90		0.41	11.0	8	16	5	7	s.	Lyman Falls Power Co.
Burlington	Chittenden	404	6	10.2	-7.7	45	28	-22	12	29	0.41	-0.96	0.36	6.9	3	9	12	17	n.	U. S. Weather Bureau.
Cavendish	Windor	910	11	12.0		48	28	-27	13	52	2.56		1.20	22.0	4	13	9	6	n.	Colonial Power Co.
Chelsea	Orange	840	19	9.2	-9.6	47	28	-31	24	48	2.02	-1.46	1.75	24.0	4	13	3	12	n.	W. F. Dewey.
Cornwall	Addison	517	20	12.0	-7.2	45	28	-21	24	44	0.47	-0.86	1.00	20.0	5	16	6	6	n.	C. H. Lane.
Enosburg Falls	Franklin	601	22	9.5	-7.5	50	28	-25	24	44	0.47	-2.55	0.17	5.5	5	21	3	4	n.	L. H. Pomeroy.
Hyde Park	Lamoille	576	2	9.2		52	28	-35	24	53	1.32		0.80	17.0	6	14	5	9	nw.	A. V. Wiswell.
Manchester	Bennington	980	15	14.8		49	28	-20	12	33	0.59		0.59	13.0	1	9	12	7	sw.	N. M. Canfield.
Northfield	Washington	876	27	7.7	-9.5	47	28	-33	24	50	1.56	-0.70	1.33	19.7	7	11	7	10	n.	U. S. Weather Bureau.
Somerset	Windham	2,096	2									-0.63	1.05	24.9	12	18	4	6	nw.	Power Construction Co.
St. Johnsbury	Caledonia	711	21	9.2	-8.0	48	28	-33	24	50	2.00	-1.21	1.26	19.0	4	13	8	7	sw.	Fairbanks Museum.
Wells	Rutland	750	21	14.2	-4.7	42	4	-19	12	29	1.78	-1.21	1.26	19.0	4	13	8	7	sw.	E. R. Pember.
Woodstock*	Windor	700	22	12.6	-4.8	45	4	-28	12	47	1.92	-1.30	1.78	34.0	3	14	3	11		John S. Eaton.
Massachusetts.																				
Amherst §	Hampshire	222	25	18.0	-6.9	47	27	-17	16	46	3.36	+0.08	1.95	24.5	8	15	5	8	nw.	Agr. Exp. Station.
Blue Hill †	Norfolk	640	30	21.0	-4.6	50	4	-14	12	27	3.52	-0.68	1.47	25.6	10	12	6	10	w.	Blue Hill Observatory.
Boston	Suffolk	124	44	24.3	-3.7	56	4	-11	12	26	3.07	-0.37	1.49	20.6	8	11	10	7	w.	U. S. Weather Bureau.
Chestnut Hill §	do	124	34	23.0	-4.3	52	4	-12	12	37	4.34	+0.27	1.87	19.0	7	23	0	5	nw.	Met. Water Board.
Clinton §	Worcester	370	18	18.3		53	4	-16	15	38	4.86		2.11	28.5	7	19	0	9	n.	Do.
Concord §	Middlesex	139	24	18.6	-5.0	51	4	-16	16	46	2.90	-0.43	1.50	26.9	8	13	10	5	nw.	Fred A. Tower.
Fall River	Bristol	200	48	23.8	-4.8	54	4	-9	12	27	3.78	-0.87	1.19	22.2	8	10	15	3	nw.	C. V. S. Remington.
Fitchburg §	Worcester	550	31	20.0	-4.1	52	28	-16	12	33	2.19	-1.93	1.00	23.0	8	18	3	7	nw.	Dr. A. P. Mason.
Framingham §	Middlesex	160	34	20.6	-6.1	51	4	-14	12	43	3.80	-0.54	1.70	22.5	7				n.	Met. Water Board.
Hyannis**	Barnstable	31	23	26.1	-4.2	56	4	-10	12	24	4.04	+0.27	1.30	7.0	11	10	13	5	nw.	C. F. Sleeper.
Lawrence §	Essex	51	30	19.1	-5.5	52	4	-16	12	45	3.18	-0.82	1.56	28.2	5	10	14	4	w.	Essex Company.
Lowell §	Middlesex	100	29	21.0	-4.1	50	4	-14	16	44	4.44	+0.77	2.64	19.0	5				n.	Props. Locks & Canals.
Middleboro §	Plymouth	53	28	22.4	-5.4	56	4	-10	12	41	2.71	-1.66	0.79	19.8	6	9	9	10	ne.	A. R. Gurney.
Nantucket	Nantucket	47	28	28.2	-4.4	50	7	-4	12	22	4.00	+0.89	1.35	19.2	10	10	7	11	w.	U. S. Weather Bureau.
New Bedford	Bristol	88	102																	City Engineer.
Norfolk §	Norfolk	244	11	19.9		53	4	-17	25	51	3.46		1.52	24.5	6	17	6	5	nw.	Ruby H. Martyn.
Plymouth	Plymouth		29	22.6		54	5	-11	12	32	3.85		1.20	24.0	8	16	2	10	w.	G. L. Knapp.
Provincetown	Barnstable	40	27	26.6	-2.6	50	11	-8	12	24	4.44	+1.28	1.26	19.5	11	14	0	14	n.	Lideon Bowley.
Rockport §	Essex	25	12	24.4		53	4	-13	12	29	3.05		0.92	8.1	7	11	8	9	nw.	C. F. P. Bearse.
Rutland §	Worcester	1,160	12	17.2		47	21	-20	12	29	3.55		0.73	22.8	9	15	11	2	sw.	State Sanatorium.
Springfield	Hampden	199	1	21.2		48	31	-13	12	39	3.55		1.30	34.0	9	10	8	10	nw.</	



Daily Precipitation for February, 1914.

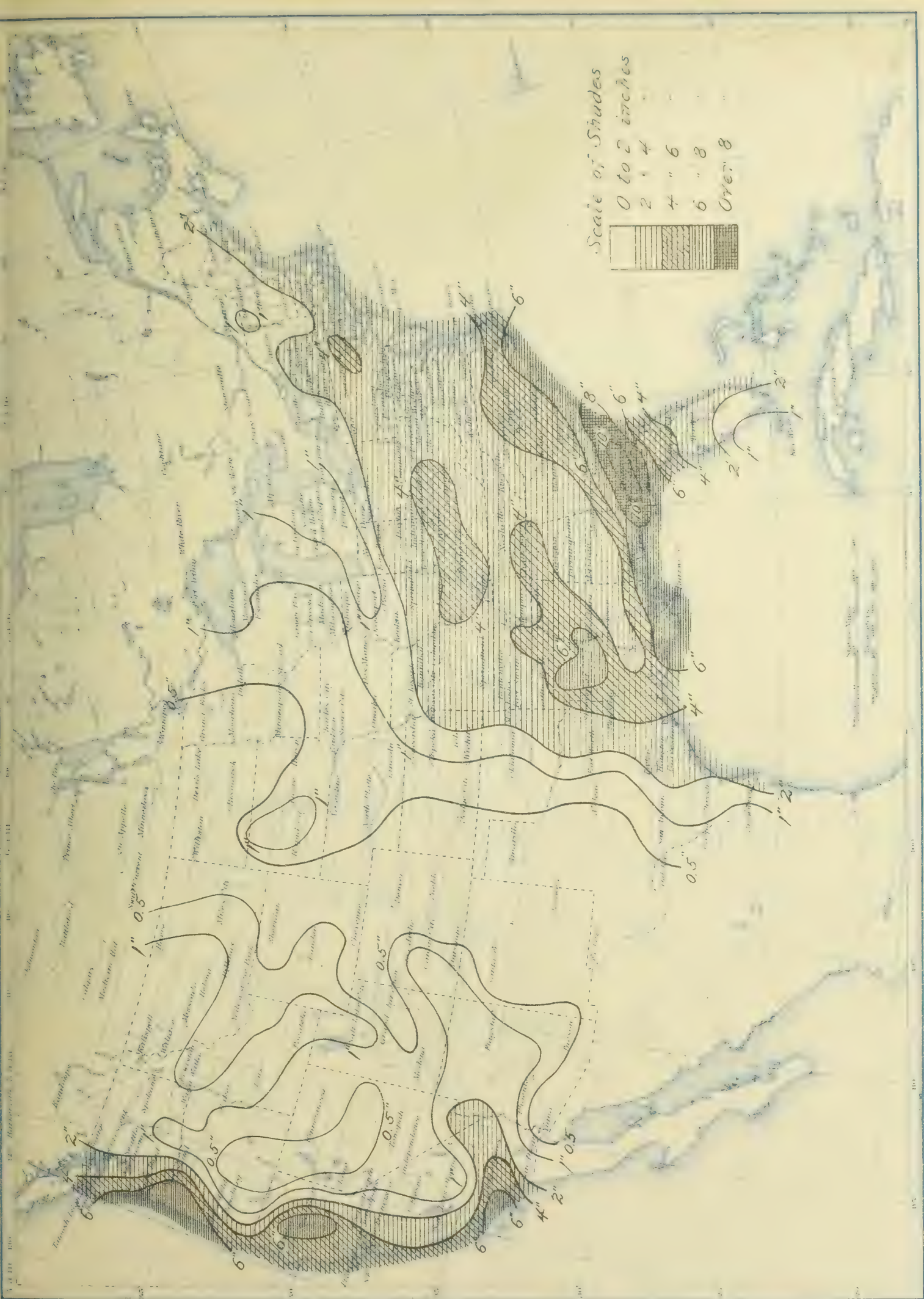
Stations.	Watershed.	Day of month.																															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Maine.																																	
Ashland	St. John	.52		.03					.45						.55	.64							.43										2.67
Bar Harbor	Coast						T	.85	T						.60		.15			.10			.14					.05					1.89
Cambridge	Kennebec	.43		.01	.15										.50	.05	.02	.02															1.18
Cornish	Saco				.16		.30	.13		T					1.30						.05												1.94
Danforth	Penobscot	.45			.15				.27							.72																	1.66
Eastport	Coast	.20			.13		.01		.57						.82		.19	.12		.02			.17										2.26
Eustis	Kennebec	.20	T	.03	.03			.18	.07		.01				.25	.80	.01	T					.03	T				T	T				1.61
Fairfield	do	.50						.35							1.00																		1.89
Farmington	do	.20			.01	.03		.25	.17						1.15		T																1.81
Gardiner	do	.31				.14		.59							.80	.50	.02			.15	.02	.01		.01									2.55
Greenville	do	.10		.05	.02			.35		T	T				1.15		.05			T			.20							T			1.92
Houlton	St. John			.10				.20							.45								.15										0.90
Howe Brook	Penobscot	.20		.08			.12		.30									.30				.20		.25				.10					1.55
Lewiston	Androscoggin				.11			.50							1.23		.01			.08													1.91
Madison	Kennebec			.11				.29							.92																		1.32
Millinocket	Penobscot	T		.09			.45	.18			T			T	.79		.02						.06				.01						1.60
North Bridgton	Saco			T				.23							1.20		T				.04												1.47
Oquossoc	Androscoggin			T				.25							.90								T										1.15
Orono	Penobscot	.20			.32			.20							.40	1.00			.20				.20										2.52
Patten	do			.10		.20		.40							.80																		1.50
Pemaquid	Coast					.17		.70	.48						2.27		.07			.23	T	T	T										3.92
Portland	do																																2.70
Presque Isle	St. John	.40		T				.50			T				.20	1.50	T	T					.10	T									1.42
Rumford	Androscoggin	T		T	.08		.17	.19		.01					.97								T										
The Forks	Kennebec																																1.45
Van Buren	St. John	.58		.03	T			.18	.16						.15	.35	T						T										1.34
Winslow	Kennebec	.53						.36							.45																		
New Hampshire.																																	
Alstead Center	Connecticut				T	.12		T	.12			T			.87	T	.07			.13			T										1.41
Benton	do																																1.61
Bethlehem	do	.10	.10		.07	T			T	T					1.30		T																2.88
Brookline	Merrimack			.10			.40	.30							1.05		.01			.02			.04										1.65
Concord	do				.07		.20	.16							.96		.04			.22	T		T										2.21
Durham	do			.15				.73							1.06		.06																1.81
Franklin	do			.05		.08		.42							1.06		.06			.14			T										1.65
Grafton	do							.31							1.14		.08			.10			.10										1.72
Hanover	Connecticut				.01			.12			.01				1.40		.08		.05				.05										1.72
Keene	do	.04			.07		.03	.17							1.00		.15		.26				T										3.01
Nashua	Merrimack	.08			.12		T	.80							1.44		.10	.06		.34	.07												1.86
Newton	do			.20				.64							.60		.05		.37														1.23
Plymouth	do			T	.10			.18		T			T		.80		.07	T		.06													
Vermont.																																	
Bloomfield	Connecticut	.08	.15		.04			.02	.08						.41	.10							.02										0.50
Burlington	Champlain	T	T			.03	T		T						.36		T	T	T				.02										0.41
Cavendish	Connecticut							.45							1.20	.90	T			.01			T										2.56
Chelsea	do			T			.08	.15							1.75																		2.02
Cornwall	Champlain	.10			.05			.05							1.00								.10										1.30
Enosburg Falls	do	.04	.08					.17			T	T			.16	T							.02										0.47
Hyde Park	do	.08	.10					.30	T						.80	.02			T				.02										1.32
Manchester	Hudson			T				.17							.59		T			T			T										0.59
Northfield	Champlain	.02		T			.12	.01	.02		T				1.33		.04	T	T				.02										1.56
Somerset	Connecticut														1.05	.22	.03	.03					.05										2.00
St. Johnsbury	do	.24	.17		.03			.11	.02	.03	.02				.35		.08	.03		.20	.05												0.90
Vernon	do						.19	.03							1.26		T						.08										1.78
Wells	Champlain	.34			T			.10							1.78																		1.92
Woodstock	Connecticut					.11																.03											
Massachusetts.																																	
Amherst	Connecticut			.08	.02		.28	.31							.06	1.95		.24	T		.50			T									3.36
Ashland	Merrimack				.14		*	.70							1.78		1.43			.62									.39				4.06
Bakers Bridge †	do							.64							.86		.08			.30													1.88
Bedford	do				.19			.54							1.01	.02		.17		.41	.11	T											2.45
Blue Hill	Coast	.02			.22		.15	.67	T						T	1.47		.28	.05	.51	.14	.01	T										3.52
Boston	do	.02		.03	.14		.41	.25	T						T	1.49		.27	T	.46	T	T											3.07
Brookton	Coast	.62			.18		T	.70							.53		.17	.32		.64	.10												3.26
Chestnut Hill	do			.21			.69	.19							1.87		.34			.74									.30				4.34
Clinton	Merrimack				.14			.	.87						2.11		.35		.69										.50				4.86
Concord	do			T	.13		.08	.57	.50						1.50		.12	.05	T	.43	.02												2.90
Fall River	Coast																																



## Daily Temperatures for February, 1914.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean.	
Maine.																																	
Bar Harbor	Maximum	35	40	40	45	38	35	38	33	35	18	13	0	12	20	27	21	20	22	25	22	26	30	12	26	36	36	42	50			28.5	
	Minimum	24	18	15	22	18	18	20	12	12	9	12	18	10	3	8	14	10	20	3	0	3	7	12	0	5	8	16	18	18		5.3	
Cornish	Maximum	47	47	40	53	39	33	37	35	33	32	20	14	28	27	28	12	35	39	26	35	28	33	32	28	36	44	51	58		34.5		
	Minimum	29	19	16	24	14	1	16	12	7	8	10	18	13	2	3	25	2	18	12	5	0	14	5	13	13	0	17	5		1.5		
Eastport	Maximum	39	27	37	42	30	27	43	32	14	18	7	7	12	31	29	20	14	22	22	16	11	32	16	10	24	34	42			23.7		
	Minimum	17	15	15	30	16	10	24	1	6	9	20	23	11	8	6	7	0	1	15	8	1	9	0	5	2	15	23	25		5.8		
Greenville	Maximum	25	28	24	41	27	26	25	20	10	6	12	16	6	17	10	5	7	18	19	13	11	20	4	8	20	29	37	47		16.7		
	Minimum	7	8	2	18	4	8	10	2	5	13	26	29	20	10	12	22	7	19	2	0	10	3	10	21	7	27	37	47		4.9		
Millinocket	Maximum	26	25	27	44	33	20	21	21	12	12	6	8	13	15	18	6	13	19	20	22	18	21	21	17	22	27	40	46		20.2		
	Minimum	6	11	6	17	7	10	1	1	8	20	23	26	15	17	6	23	2	25	8	15	6	21	7	27	5	13	13			7.0		
Orono	Maximum	38	26	36	40	41	34	29	31	34	24	17	13	12	21	24	14	15	20	23	18	17	30	29	23	24	31	38	45		26.7		
	Minimum	10	14	4	25	11	1	13	11	7	5	18	23	17	18	4	24	1	24	7	9	2	20	2	20	20	2	14	7		2.9		
Portland	Maximum	39	36	39	50	32	28	33	29	20	20	5	2	17	26	22	11	19	27	21	21	15	33	17	16	26	33	40	42		25.7		
	Minimum	16	23	18	32	23	13	19	14	11	3	15	17	4	11	2	7	3	15	13	6	6	2	5	0	15	24	21			8.7		
Presque Isle	Maximum	20	20	26	41	33	11	20	22	10	9	8	7	14	10	12	1	13	11	7	2	5	22	22	8	22	32	36	45		16.4		
	Minimum	2	2	16	19	13	18	10	4	13	8	36	22	21	26	3	33	5	35	28	15	17	30	10	32	28	5	17			13.1		
Rumford	Maximum	36	30	32	43	32	21	32	26	18	14	5	8	13	26	10	13	24	24	20	17	29	10	14	25	35	40	40			22.2		
	Minimum	18	16	13	20	14	2	17	14	9	3	20	22	10	2	3	16	0	12	2	7	7	11	4	8	0	17	8			1.5		
Van Buren	Maximum	20	17	24	38	35	14	20	18	16	3	9	12	6	10	10	8	9	13	9	10	22	10	22	6	15	33	36	43		15.4		
	Minimum	3	2	18	16	3	19	12	20	12	17	33	27	16	28	3	20	35	17	16	15	28	0	28	35	30	7	18			14.7		
New Hampshire.																																	
Alstead Center	Maximum	35	32	37	42	30	22	34	30	15	15	15	8	6	22	15	4	14	19	23	20	14	26	23	5	20	33	35	45		22.2		
	Minimum	24	21	11	30	20	6	22	14	3	7	9	24	14	4	1	9	4	1	17	10	1	5	4	11	8	9	26	22		6.0		
Bethlehem	Maximum	33	27	37	43	26	25	38	31	13	9	3	16	3	21	16	5	9	21	23	19	14	27	10	4	20	32	35	47		20.3		
	Minimum	24	10	7	26	10	4	19	7	3	3	22	28	23	3	16	20	11	3	3	2	6	3	13	17	16	3	17	14		1.7		
Concord	Maximum	36	35	40	47	34	26	35	25	18	20	6	18	26	13	11	19	30	26	27	24	33	17	13	19	29	40	43	46		26.3		
	Minimum	23	19	12	29	20	10	21	14	8	2	15	18	9	11	7	18	2	13	20	12	1	2	1	6	2	20	10			4.8		
Franklin	Maximum	41	36	35	48	42	26	32	34	21	21	12	2	21	27	21	9	21	31	26	27	28	34	29	16	30	40	41	50		28.6		
	Minimum	21	25	9	24	18	6	19	14	7	4	8	20	12	5	3	18	3	15	17	10	6	11	1	12	3	3	18	7		3.3		
Hanover	Maximum	37	35	40	44	32	28	36	34	19	17	6	2	11	22	14	1	17	24	23	20	23	28	16	9	26	41	43	50		24.8		
	Minimum	23	18	11	25	17	1	20	10	6	5	14	22	15	0	8	24	14	16	10	3	2	10	7	19	22	9	3	5		1.2		
Nashua	Maximum	42	40	45	52	41	32	33	35	21	27	21	3	23	27	27	10	24	32	27	29	28	34	32	18	36	44	47	50		31.5		
	Minimum	28	27	18	35	25	16	25	20	10	3	1	15	7	14	6	17	2	12	13	10	10	9	5	6	10	2	19	11		7.7		
Plymouth	Maximum	36	35	30	42	32	25	33	32	17	14	9	8	10	27	22	10	15	24	25	23	20	26	23	8	23	34	42	45		24.1		
	Minimum	21	25	9	16	19	0	19	14	5	3	8	20	11	2	2	15	0	22	9	10	3	14	3	11	3	4	13	0		2.0		
Vermont.																																	
Burlington	Maximum	36	30	38	40	23	26	37	22	18	13	6	7	2	11	8	9	12	31	17	13	11	21	2	1	16	30	40	45		18.9		
	Minimum	30	12	13	23	8	4	22	8	8	6	20	22	15	2	16	18	12	4	17	6	6	9	2	13	18	13	9	28	24		1.4	
Enosburg Falls	Maximum	35	27	42	42	28	29	40	31	18	14	3	10	3	12	9	15	12	23	22	12	11	25	8	3	25	34	40	50		21.3		
	Minimum	23	8	2	28	8	2	24	4	8	3	22	22	17	5	12	21	17	1	7	5	12	8	13	25	18	7	13			2.3		
Northfield	Maximum	36	30	39	44	26	22	40	21	14	13	7	7	6	11	4	5	15	24	24	12	14	30	5	5	24	35	40	47		20.4		
	Minimum	26	11	11	23	5	7	21	8	6	8	20	23	24	3	22	26	15	8	4	12	8	8	25	33	26	8	14	2		5.0		
Somerset	Maximum																																
	Minimum																																
St. Johnsbury	Maximum	33	32	34	41	36	24	34	35	17	14	6	10	8	17	17	4	14	24	26	26	18	26	16	7	22	34	39	48		22.9		
	Minimum	28	22	5	22	10	11	20	8	6	6	20	24	29	6	1	30	19	16	3	10	5	12	14	33	28	9	13	0		4.6		
Massachusetts.																																	
Amherst	Maximum	40	38	45	43	37	31	35	27	20	24	13	3	17	29	17	11	20	26	27	23	31	31	19	16	33	41	47	46		28.2		
	Minimum	32	27	18	29	23	15	27	17	9	13	8	13	10	11	9	17	1	7	20	12	7	1	3	3	13	1	23	13		7.7		
Blue Hill	Maximum	44	35	45	50	34	31	34	33	20	25	18	4	12	37	23	18	14	23	26	23	21	31	30	12	26	37	43	46		28.4		
	Minimum	32	25	25	34	25	19	26	20	10	13	2	14	7	11	6	2	6	9	21	15	10	13	7	1	1	14	27	28		13.5		
Boston	Maximum	44	42	52	56	37	35	39	32	24	31	16	9	19	36	22	18	25	29	28	29	21	38	23	18	30	41	48	52		31.9		
	Minimum	36	31	30	34	24	29	21	16	16	3	11	3	18	7	5	9	14	25	19	12	16	9	2	4	17	30	32					







†† Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.

Year.	Temperature.				Precipitation.		Weather.		Wind.						
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .40 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Per cent of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888.....	24.9	60	-30	3.78	10	11.9	n.w.	.....	.....	.....	.....	.....	.....	.....	.....
1889.....	24.0	58	-44	2.32	10	16.7	n.w.	.....	.....	.....	.....	.....	.....	.....	.....
1890.....	26.4	70	-20	3.59	12	7.9	n.w.	.....	.....	.....	.....	.....	.....	.....	.....
1891.....	26.3	63	-26	4.61	16	14.5	n.w.	12.8	55	e.	.....	.....	.....	.....	.....
1892.....	25.0	54	-28	2.09	8	14.8	n.w.	12.3	64	no.	.....	.....	.....	.....	.....
1893.....	21.7	39	-32	4.05	13	39.1	n.w.	13.3	69	n.w.	.....	.....	.....	.....	.....
1894.....	21.5	50	-42	3.05	9	24.6	n.w.	13.0	73	e.	.....	.....	.....	.....	.....
1895.....	19.3	52	-27	1.05	5	11.1	n.w.	12.7	66	w.	.....	.....	.....	.....	.....
1896.....	23.6	57	-37	5.08	11	16.9	n.w.	14.5	58	s.e.	.....	.....	.....	.....	.....
1897.....	25.1	54	-25	2.20	7	14.3	12	11	45	n.w.	11.6	70	no.	.....	.....
1898.....	27.1	60	-38	5.20	10	22.6	9	6	13	38	n.w.	11.3	76	no.	.....
1899.....	21.1	60	-30	3.74	14	25.0	11	7	10	52	n.w.	12.3	73	n.	.....
1900.....	23.3	68	-30	7.13	10	16.1	10	6	12	50	n.w.	14.2	78	n.w.	.....
1901.....	18.0	49	-23	0.96	1.90	4	9.7	15	7	6	65	n.w.	15.2	61	n.w.
1902.....	23.8	65	-23	3.77	2.37	8	18.9	13	6	9	52	n.w.	14.8	72	ne.
1903.....	25.7	63	-37	4.03	2.05	9	17.6	12	6	10	60	n.w.	12.0	69	s.
1904.....	16.6	59	-43	2.30	2.23	9	12.4	13	6	10	58	n.w.	12.8	78	n.w.
1905.....	17.1	54	-32	1.53	1.70	6	11.8	14	6	8	63	n.w.	13.3	68	w.
1906.....	24.5	63	-36	2.53	2.07	6	11.7	14	6	8	58	n.w.	11.6	60	ne.
1907.....	15.9	55	-37	2.08	1.85	9	21.9	12	8	8	55	n.w.	11.9	70	ne.
1908.....	20.7	61	-38	4.31	2.31	9	20.9	13	7	9	55	n.w.	11.5	84	s.
1909.....	26.4	61	-30	5.24	2.64	9	7.9	11	7	10	45	n.w.	12.8	90	s.
1910.....	23.4	60	-31	4.03	2.04	10	22.1	12	7	9	50	n.w.	12.6	70	se.
1911.....	21.2	58	-32	2.51	2.20	9	18.6	11	6	11	47	n.w.	11.8	55	sw.
1912.....	21.8	58	-34	2.51	2.72	5	7.8	16	7	6	61	n.w.	10.9	72	se.
1913.....	21.9	61	-30	2.65	2.40	8	10.4	16	5	7	62	n.w.	11.0	60	w.
1914.....	16.8	58	-36	2.48	2.64	7	19.5	15	6	7	62	n.w.	13.2	72	n.w.



U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU

CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

MARCH, 1914

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BY

JOHN W. SMITH

DISTRICT FORECASTER AND SECTION DIRECTOR

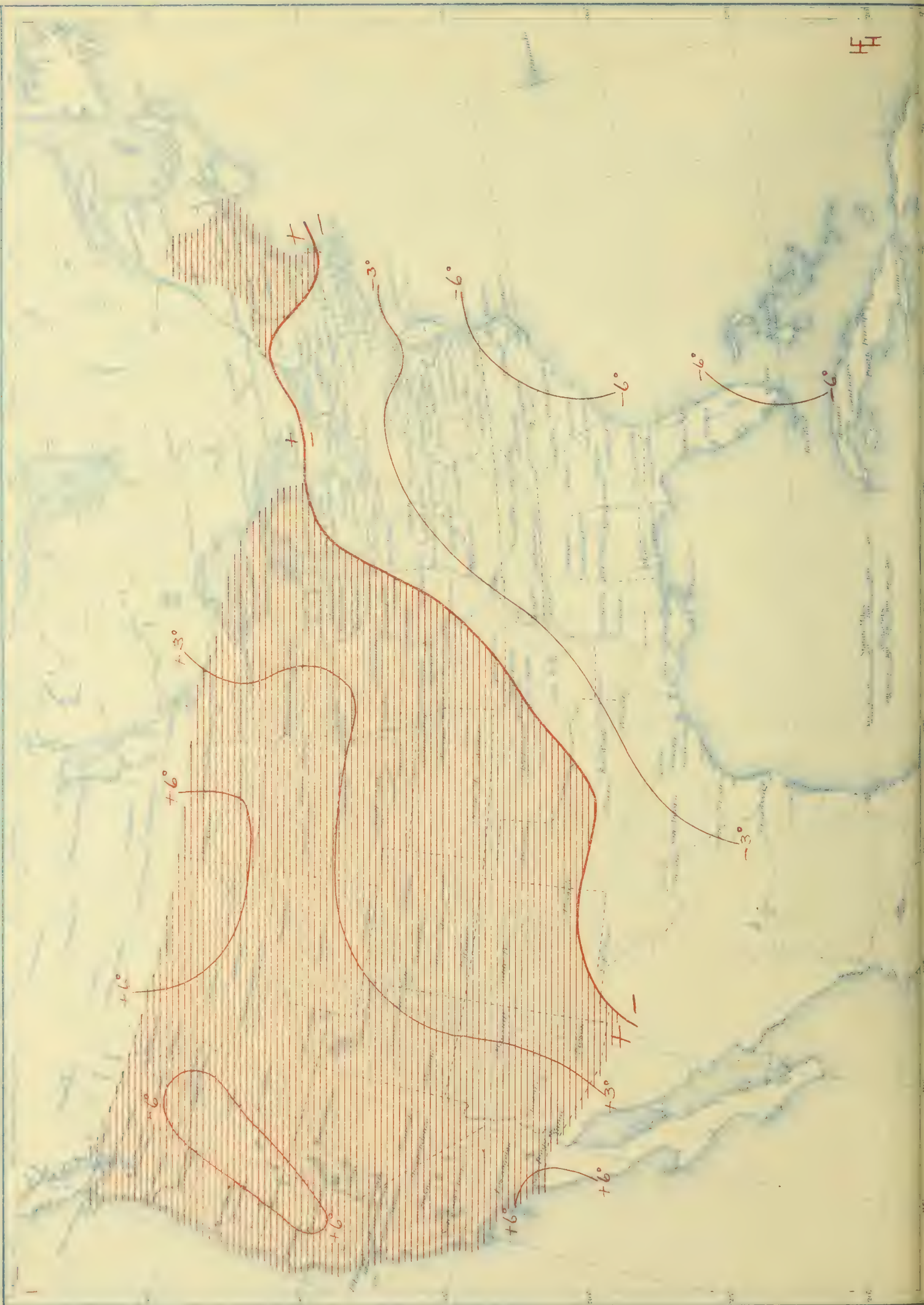
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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
APRIL 23, 1914



Departure of the Mean Temperature from the Normal, March, 1914.





U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU

NEW ENGLAND SECTION.

Vol. XXVI. Boston, Mass., March 1914. No. 4

GENERAL SUMMARY

The weather conditions of the month were unusual, with marked departures from the normal. Both the average temperature and precipitation were somewhat above the normal, the former in each condition being slightly greater in the northern than in the southern. The amount of snowfall was near the average for the month. In the interior of Maine and New Hampshire and over the greater portion of Vermont the ground was covered with snow through the month, the depth, according to long barometer, 20 and 30 inches in the north portion of the month to 10 inches or less at the close, except in the coastal sections where from 2 to 3 feet remained. On the coast and in the southern states of the section, except in portions of eastern Massachusetts and northeastern Connecticut there was little or no snow and generally more about the middle of the month. The amount of rain was much less than usual.

The loss of barometric pressure that passed over the section on the 14, caused unusually low barometric readings, and at many stations lower than any previous record. During the forenoon of the 14th and late afternoon of the 15th, very dense local clouds, fog and squalls obfuscated the sunshine that artificial light was required for several hours in buildings, and for a short time at the coast.

PRESSURE

The mean sea-level pressure for the section, 15 stations reporting, 30.08 inches, was 0.01 of an inch above the normal for the month.

The highest monthly mean was 30.19 inches, at Concord, N. H., Burlington and Northfield, Vt., and Amherst, Mass.

The lowest monthly mean was 29.96 inches, at Newmarket and Rockland, Mass.

The highest recorded was 30.69 inches, at Eastport, Me., Concord, N. H., Blue Hill, Mass., on the 14th.

The lowest recorded was 29.17 inches, at New Haven, Conn., on the 1st.

The monthly range for the section was 1.52 inches.

TEMPERATURE

The monthly mean for the section was 41.6°, and 0.8° above the normal, based on stations having ten or more years' record.

The monthly means by states: Maine, 39.5°; New Hampshire, 39.7°; Vermont, 38.4°; Massachusetts, 34.3°; Rhode Island, 34.2°; Connecticut, 40.6°.

The highest monthly mean was 47.6°, at New London, Conn. The lowest monthly mean was 35.2°, at Greenville, Me.

The highest temperature recorded was 75°, at Boston, Mass., on the 14th.

The lowest temperature recorded was -13°, at Hyde Park, Vt., on the 12th.

The greatest local monthly range was 74°, at Hyde Park, Vt. The least local monthly range was 20°, at Berlin, N. H.

The greatest daily range was 45°, at Van Buren, Me., on the 22d.

HUMIDITY

The monthly average for the section, 15 stations reporting, is 77 per cent, and 4 per cent above the normal for the month.

The highest monthly average was 80 per cent, at Northfield, Vt., and Rockland, Mass.

The lowest monthly average was 70 per cent, at Fall River, Mass.

PRECIPITATION

The average for the section, 4.11 inches, was 0.22 of an inch above the normal, based on stations having ten or more years' record.

Average precipitation, by states: Maine, 5.95 inches; New Hampshire, 4.65 inches; Vermont, 2.97 inches; Massachusetts, 4.47 inches; Rhode Island, 4.36; Connecticut, 4.41.

The greatest monthly amount was 6.16 inches, at Wrentham, Mass.

The least monthly amount was 1.20 inches, at Westport, Me.

The greatest amount in 24 hours was 5.72 inches, at Southfield, Conn., on the 14th.

The average number of days with 0.1 inch or more of precipitation was 21.

The average amount for the section was 2.14 inches.

The average monthly by states: Maine, 11.8 inches; New Hampshire, 9.2 inches; Vermont, 7.15 inches; Massachusetts, 7.5 inches; Rhode Island, 8.2 inches; Connecticut, 7.3 inches.

The greatest monthly amount in 24 hours was 19 inches at Tisbury, Mass., on the 14th.

WIND

The prevailing direction of the wind was from the southwest. The average monthly wind movement for the section, 15 stations reporting, was 8,468 miles.

The greatest monthly wind movement was 14,415 miles, at Black Island, N. H.

The least monthly wind movement was 4,241 miles, at Concord, N. H.

The greatest maximum velocity recorded was 35 miles per hour from the southwest, on the 1st, at Southport, Mass.

SUNSHINE AND CLOUDINESS

The average number of clear days was 11; partly cloudy, 8; cloudy, 12.

The average per cent of possible sunshine, 15 stations reporting, was 41 per cent, which was 2 per cent below the normal for the month.

The greatest per cent of the possible amount was 52 per cent, at Providence, R. I., and Hartford, Conn.

The least per cent of the possible amount was 30 per cent, at Burlington, Vt.

MISCELLANEOUS PHENOMENA

Aurora.—Eastport, Me., 14; Eastport Falls, Vt., 18.

Hail.—Wiscasset, Me., 9; Northfield, Vt., 4, 8, 8, 12, 21, 22, 23; Boston, Mass., 11, 16; Somers, Mass., 11; Hartford, Conn., 3, 11, 11, 16, 17; New Haven, Conn., 4, 5, 21, 28, 27.

Hail, trace: Berlin, N. H.; New Haven, Conn., 11; Boston, Mass., 3, 11; Somers, Mass.; Hartford, Conn., 5; Black Island, R. I., 5, 10; Norwalk, Conn., 11.

Sleet and hail.—Bar Harbor, Me., 19; Eastport, Lewiston, Madison and Portland, Me., 30; Howe Brook, Me., 20; Wiscasset, Me.; Chestnut Hill, Lewiston; Nashua, North Plymouth and Sterling, Mass.; Green and Wallen Lake, N. H.; Bridgeport, Hartford, New Haven, North Haven, Tolland and Waterbury, Conn., 18; Haverhill, N. H., 27; Alford (trace), Keene, N. H., Springfield, Mass., 28; Nashua, Keene, N. H., and Berlin, Mass., 18, 30; Andover and Blue Hill, Mass., 18, 19; Fitchburg, Mass., 18, 30; Rockland, Mass., 20.

Fog.—At regular Weather Bureau stations: Eastport and Portland, Me.; Concord, N. H.; Manchester, Mass.; Hartford, Conn., 18; Boston, Mass., and New Haven, Conn., 18, 17. At cooperative stations (date and number of occurrences reported): Maine—18th, 1, 18th, 4; 19th, 1; New Hampshire—18th, 1, 19th, 1; Massachusetts—18th, 9; 19th, 1; Rhode Island—18th, 2; Connecticut—18th, 20; 19th, 8.



## Climatological Data for March, 1914.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.					Precipitation, in inches.					No. of days—					Observer.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.1 or more.	Clear.	Partly Cloudy.	Cloudy.		Prevailing direction of wind.	
Maine.																					
Bar Harbor	Hancock	20	28	30.2	-1.0	55	27	4	10	32	4.15	-1.22	1.55	4.5	7	11	4	16	se.	William Miller.	
Cornish	York	778	59	34.6	+5.3	69	27	5	21	38	4.95	+0.63	2.50	8.0	10	10	6	15	sw.	T. H. West.	
Eastport	Washington	53	42	29.6	+0.7	49	27	8	21	19	3.77	-0.51	0.92	18.0	16	4	12	15	s.	U. S. Weather Bureau.	
Fairfield	Somerset	90	29	31.0	+3.2	56	27	5	12	29	3.40	+0.21	1.77	9.4	6	15	5	11	.....	E. F. Parker.	
Farmington	Franklin	450	17	29.2	-1.0	53	26	3†	13	35	5.32	+1.08	3.00	9.0	10	2	10	13	nw.	State Normal School.	
Gardiner	Kennebec	163	22	31.3	+1.0	60	27	6	13†	32	4.09	+0.08	1.14	3.0	12	12	5	14	w.	Samuel D. Soule.	
Greenville	Piscataquis	1,140	10	25.2	.....	55	26	-2	12	34	4.15	+1.11	1.23	22.6	11	.....	.....	.....	.....	U. S. Weather Bureau.	
Houlton	Aroostook	362	12	30.0	.....	48	27	4	13	33	1.20	-1.09	0.48	20.0	4	13	7	11	w.	Bangor & Aroostook RR.	
Lewiston	Androscoggin	185	40	31.0	+2.2	61	26	11	13	28	5.04	+0.51	1.96	8.8	12	9	11	11	nw.	Union Water Power Co.	
Madison	Somerset	257	11	27.3	.....	54	27	1	14	36	5.54	+1.66	3.05	10.5	7	15	2	14	ne.	William Jardine.	
Millinocket	Penobscot	386	11	27.0	.....	48	26	-3	13	35	4.43	+0.93	1.08	18.5	11	13	1	17	w.	Great Northern Paper Co.	
North Bridgton	Cumberland	450	21	31.6	+2.7	63	27	4	12	32	4.65	+0.45	1.50	7.5	9	7	13	11	se.	G. E. Chadbourn.	
Orono	Penobscot	129	45	30.6	+3.0	50	27	4	13	31	2.72	-1.36	1.25	5.0	5	8	9	14	ne.	Department of Physics.	
Patten	do.	550	12	25.8 <sup>e</sup>	.....	60 <sup>e</sup>	28	-3 <sup>e</sup>	14	38 <sup>e</sup>	3.20	.....	1.60	22.0	4	16 <sup>e</sup>	1 <sup>e</sup>	9 <sup>e</sup>	ne.	Bangor & Aroostook RR.	
Pemaquid	Lincoln	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Margaret Adams.	
Portland	Cumberland	99	43	32.8	+0.8	59	27	11	21	22	4.37	+0.62	1.98	8.1	14	11	5	15	nw.	U. S. Weather Bureau.	
Presque Isle	Aroostook	.....	5	25.6	.....	58	27	-6	13	36	2.50	.....	0.60	16.0	7	13	6	12	w.	E. M. Libby.	
Rumford	Oxford	505	21	29.8	+2.3	52	26	8	14†	30	4.78	+1.28	3.22	9.8	8	16	7	8	nw.	Charles A. Mixer.	
Van Buren	Aroostook	510	9	25.4	.....	55	26	-6	13	45	1.65	.....	0.55	11.8	8	13	7	11	nw.	J. M. Thomas.	
Winslow	Kennebec	90	19	32.6	+2.7	56	27	5	12	28	4.00	+0.20	2.28	7.0	8	13	6	12	w.	Hollingsworth & Whitney.	
New Hampshire.																					
Alstead Center	Cheshire	1,120	10	29.4	+0.1	59	27	2	21	24	4.05	+0.36	1.25	13.0	10	16	5	10	nw.	Frank Dewing.	
Benton	Grafton	.....	5	26.5 <sup>a</sup>	.....	56 <sup>a</sup>	27	1 <sup>a</sup>	21	20 <sup>a</sup>	1.95	.....	0.50	10.8	7	5 <sup>a</sup>	12 <sup>a</sup>	13 <sup>a</sup>	nw.	State Sanatorium.	
Bethlehem	do.	1,470	22	27.5	+1.0	54	26	-2	12	33	3.24	+0.27	1.63	13.0	12	11	5	15	nw.	Benjamin Tucker.	
Concord	Merrimac	350	54	31.9	+0.4	64	26	8	21	32	3.90	+0.50	2.24	8.5	11	11	8	12	nw.	U. S. Weather Bureau.	
Durham	Stafford	88	19	34.0	+2.5	68	27	9	21	32	4.22	-0.21	2.03	3.0	8	11	2	18	nw.	Agr. Exp. Station.	
Franklin	Merrimac	440	15	31.8	+0.7	62	26	6	21	32	4.67	+1.53	1.70	11.5	11	11	6	14	nw.	Dr. C. P. Webster.	
Grafton	Grafton	863	28	28.4	+0.9	59	26	-9	21	38	4.92	+1.92	3.04	12.0	8	13	8	10	nw.	P. R. Kimball.	
Hanover	do.	603	80	30.0	+2.6	61	26	-6	21	37	4.35	+1.82	1.70	10.3	10	9	9	13	w.	Dartmouth College.	
Keene	Cheshire	506	29	31.8	+1.2	67	27	-2	21	35	4.05	+0.97	1.87	9.8	10	11	10	10	nw.	Samuel Wadsworth.	
Nashua	Hillsboro	125	29	35.2	+3.0	71	27	10	21	32	4.93	+0.77	1.79	5.1	12	8	6	17	nw.	C. B. Stevens.	
Newton	Rockingham	.....	26	32.3	+0.5	68	27	8	21	31	4.13	+0.53	1.86	3.0	9	8	12	11	nw.	W. C. Gale.	
Plymouth	Grafton	500	26	29.8	+2.9	59	26	2	14	36	4.20	+0.46	1.43	12.0	10	13	1	17	w.	Hattie G. Trow.	
Vermont.																					
Bloomfield	Essex	.....	7	27.2	.....	54	26	-12	21	41	2.52	.....	0.85	12.3	11	13	3	15	s.	Lynan Falls Power Co.	
Burlington	Chittenden	404	6	28.9	+1.6	56	26	0	12†	26	1.84	+0.01	0.54	18.4	12	6	7	18	s.	U. S. Weather Bureau.	
Cavendish	Windsor	910	11	28.6	.....	59	26	-10	12	44	3.57	.....	1.29	24.0	9	11	8	12	.....	Colonial Power Co.	
Chelsea	Orange	840	19	28.2	+3.2	56	26	-13	21	43	4.42	+0.67	2.30	17.0	10	10	5	16	n.	W. F. Dewey.	
Cornwall	Addison	517	20	29.8	+0.7	54	27	-2	21	31	1.44	-0.86	0.45	22.0	8	11	5	15	s.	C. H. Lane.	
Enosburg Falls	Franklin	601	22	28.8	+1.2	59	26	-10	12	38	1.74	-1.31	0.45	20.0	11	11	4	16	nw.	L. H. Pomeroy.	
Hyde Park	Lamoille	576	2	27.4	.....	59	26	-15	12	43	2.58	.....	0.66	33.0	12	13	4	14	nw.	A. V. Wiswell.	
Manchester	Bennington	980	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	N. M. Canfield.	
Northfield	Washington	876	27	26.8	+0.6	58	26	-5	21	37	3.48	+0.69	1.90	28.0	13	6	4	21	s.	U. S. Weather Bureau.	
Somerset	Windham	2,096	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Power Construction Co.	
St. Johnsbury	Caledonia	711	21	29.4	+2.9	57	26	-7	12	37	2.59	-0.43	0.78	17.7	11	10	10	11	nw.	Fairbanks Museum.	
Wells	Rutland	750	21	28.2	+0.7	52	26	16†	1	12	27	4.31	-1.23	1.50	20.0	9	9	7	15	s.	E. R. Pember.
Woodstock	Windsor	700	22	29.8	+2.1	63	27	-9	12	38	4.24	+1.02	2.15	24.5	8	8	6	17	.....	John S. Eaton.	
Massachusetts.																					
Amherst	Hampshire	222	25	33.8	+1.1	69	27	8	21	27	5.52	+2.04	2.59	6.2	11	10	9	12	nw.	Agr. Exp. Station.	
Blue Hill	Norfolk	640	30	33.2	+0.9	69	27	10	21	27	4.20	-0.01	1.35	11.8	16	7	8	16	nw.	Blue Hill Observatory.	
Boston	Suffolk	124	44	36.7	+1.7	74	27	16	21	29	4.16	+0.08	1.27	5.2	13	8	6	17	nw.	U. S. Weather Bureau.	
Chestnut Hill	do.	124	35	36.7	+1.4	72	27†	12	11†	38	4.42	+0.37	1.12	5.0	13	20	0	11	.....	Met. Water Board.	
Clinton	Worcester	370	18	33.0	-0.4	64	27	10	20	29	5.61	.....	1.83	6.2	13	.....	.....	.....	.....	Do.	
Concord	Middlesex	139	24	33.8	.....	73	27	11	21	32	4.21	+0.72	1.58	6.7	13	8	7	16	n.	Fred A. Tower.	
Fall River	Bristol	200	48	35.5	-0.5	63	27	13	21	23	4.26	-0.27	1.65	10.0	13	12	1	8	sw.	C. V. S. Remington.	
Fitchburg	Worcester	550	31	33.8	+2.0	70	27	9	21	25	3.45	-0.42	1.75	6.5	10	13	6	12	nw.	Dr. A. P. Mason.	
Framingham	Middlesex	160	34	35.1	+0.9	72	27	10	21	37	4.38	-0.11	1.49	5.2	12	.....	.....	.....	.....	Met. Water Board.	
Hyannis	Barnstable	31	23	34.6	-2.1	51	27	14	21	20	4.51	-0.19	1.52	7.0	10	10	11	10	nw.	C. F. Sleeper.	
Lawrence	Essex	51	30	34.1	+1.5	71	27	10	21	29	4.48	+0.80	2.04	4.7	12	8	17	6	nw.	Essex Company.	
Lowell	Middlesex	100	29	35.4	+2.9	65	26†	12	21	30	4.98	+0.75	1.88	.....	.....	.....	.....	.....	.....	Props. Locks & Canals.	
Middleboro	Plymouth	53	28	34.3	+0.1	64	27	5	23	35	3.88	-0.52	1.32	7.0	12	8	8	15	nw.	A. R. Gurney.	
Nantucket	Nantucket	47	28	35.3	-1.6	52	16	19	21	22	4.62	+0.64	1.05	14.3	12	13	6	12	sw.	U. S. Weather Bureau.	
New Bedford	Bristol	88	102	36.4	+1.5	58	27	15	21	19	3.35	-0.93	1.20	8.0	13	15	4	12	sw.	City Engineer.	
Norfolk	Norfolk	244	11	33.1	.....	66	27	7	13	32	4.46	.....	1.94	7.0	8	17	6	8	sw.	Ruby H. Martyn.	
Plymouth	Plymouth	.....	29	33.2	.....	67	28	11	21	28	5.32	.....	1.52	8.5	10	16	0	15	w.	L. B. Knapp.	
Provincetown	Barnstable	40	27	34.4	-1.2	53	27	18	21	17	4.55	+0.41	1.05	6.5	12	19	0	12	sw.	Gideon Bowley.	
Rockport	Essex	25	12	34.2	.....	62	27	14	21	23	4.50	.....	1.05	4.0	13	6</					



## Daily Precipitation for March, 1914.

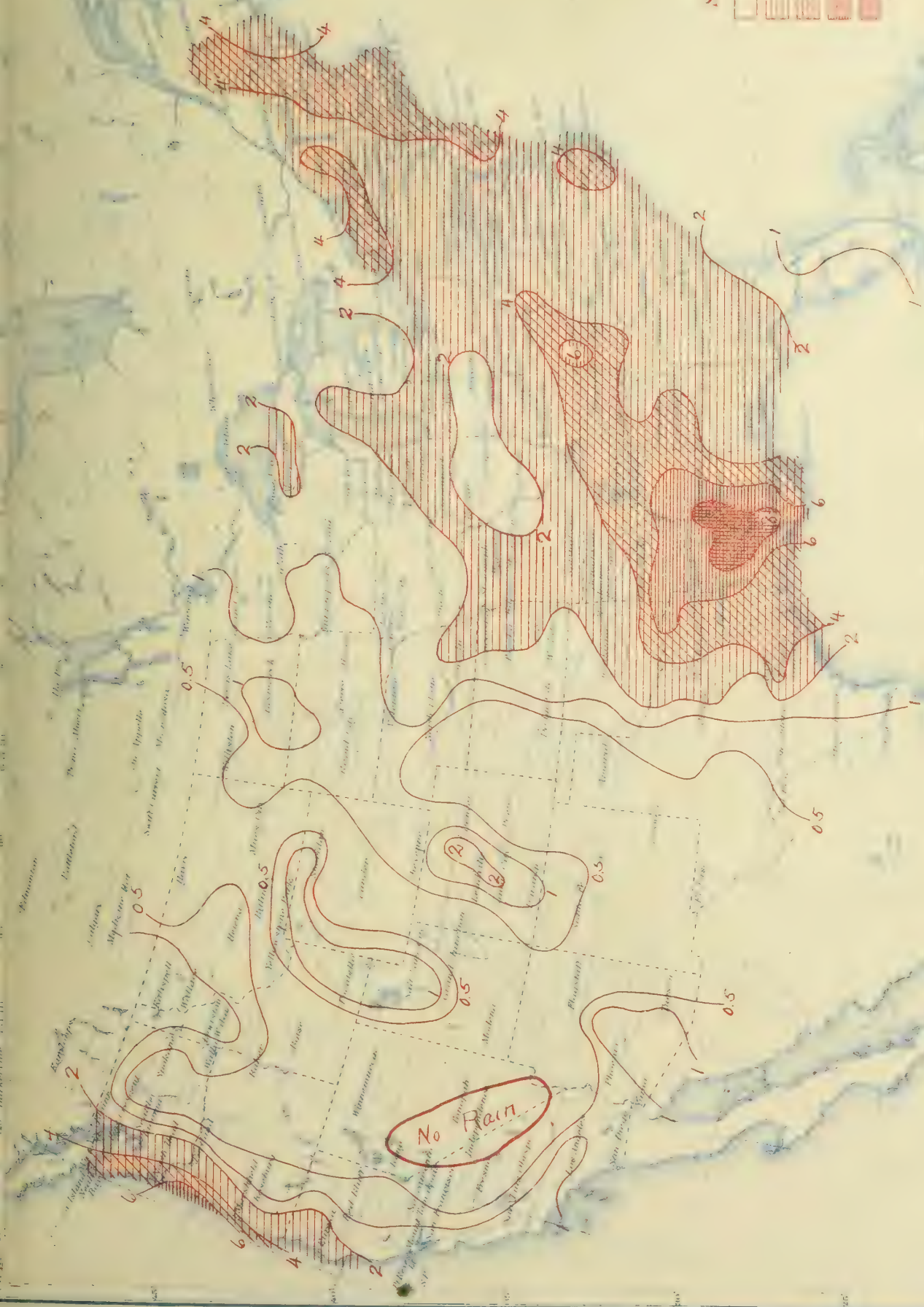
Stations.		Day of month.																															Total.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Maine.																																			
	St. John	1.10			.17	.17		.28											.25	.05	.28							.01			.25	.08	2.67		
	Coast	1.55	.20	.25				.50											T.	1.50											.10	.06	4.15		
	Kennebec	.20	1.50	.30				.30			T.								T.	.55	.45										.08		2.92		
	Saco	2.50	.68	.28	T.		.30	.05											T.	.16	.28						T.	.11	.11		.48		4.95		
	Penobscot	*	1.96	.60				.90												.60											*	.60	5.26		
	Coast	.02	.91	.58	.10	.15	.18	.28	.02	.01					.06	.21		.01	.61	.13							.01			.19		3.77			
	Kennebec	.18	2.25	.36	T.	.07		.30	.02	T.	T.	T.		T.	.11		.11		.35												.04	.27	4.00		
	do		.77					.50								.04			.38														3.10		
	do	*	3.00	.70	T.		.03	.40		T.				T.	.03	T.	.22	.42														.42	.27	4.09	
	do	.71	1.14	.53	.03		.02	.33							.04		.12	.27	.21															4.15	
	do	1.23	.79	.59	.02		.32	.05	T.	T.	T.			T.	.05	T.	.04	.21	.45	T.								T.	T.					4.20	
	St. John		.16					.16											.40													.12		1.20	
	Penobscot					.25												.30			.25				.10						.25		1.60		
	Androscooggin	1.96	.93	.40	.02		.31	.10							.07		.14	.47									.01	.01			.02		5.04		
	Kennebec		3.05	.40		.07	.48										.30	.60															.61	5.54	
	Penobscot	.70	1.06	.03	.15		.42	.04	.11						.05	T.	.27	.52	T.								T.					1.08		4.43	
	Saco	1.50	1.50	.28		.01		.39							T.	T.	T.	.10	.35										.02				.35	.50	3.05
	Androscooggin	1.90		.20				.25							T.		.15	.20	.51															.30	2.72
	Penobscot		1.25	.46													.20		.51														.70		3.20
	do		1.60					.60											.30	T.															
	Coast		.11	.37				.33																											
	do	1.87	.19	.31	.04		.77	.01									.01	.07	.36									.02			.02	.20	.13	T.	3.37
	St. John		.50	T.	T.	.20		.60	.10		T.	T.	T.		T.		.40		.30															T.	2.50
	Androscooggin	2.70	.74	.17	T.		.23			T.					.02	T.	T.	.07	.43														.42		4.78
	Kennebec																																		
	St. John					.19		.38	.04							.05		.30		.08													.55		1.45
	Kennebec	*	*	2.28	.05		.50											.18	.52														.47		4.00
New Hampshire.																																			
	Connecticut	1.25	.83	.01	.01		.14	.12										.11	.44	T.														4.15	
	do		.16	T.		T.		.31	T.		T.						.11		.22	.50							T.							1.95	
	do	.81	.82	.20	.05		.10	.30									.06		.12	.10	.20													3.24	
	Merrimack	3.15		.06			.50												.10	.40														5.26	
	do	2.24	.12	.01	T.		.33	.09											.07	.32														3.90	
	do	2.03		.52			.23												.11	.43	.41													4.22	
	do	1.02	1.11	.12	T.		.24	.07											.04	.43	T.													4.67	
	do	1.63	1.41		T.		.25	T.											.15	.43														4.92	
	Connecticut	1.70	.38	.03	T.		.40			.03					T.			.06	.55															4.35	
	do	1.87	.30	T.			.11	.05										.10	.41	.05														4.05	
	Merrimack	1.79	.63	.26			.36	.02										.07	.44															4.93	
	do	1.86	T.	.47			.16	T.										.11	.35															4.13	
	do	1.43	1.18		T.		.10	.16										.09	.23	.09														4.20	
Vermont.																																			
	Connecticut	.34	.85	.06			.12	.24	.18								.09	.15	.15															2.52	
	Champlain	1.29	.33		.02		.14	.38		.03	T.						.02	.31	.02															1.84	
	do	2.30		.04	.03		.24	.10											.62	.22														3.57	
	Champlain		.45	.12	.07	.03		.15	.20	T.									.50															4.42	
	do	.45	.12	.07	.03			.11	.17										.15															1.44	
	do	.66	.25	.02	T.	T.		.34	T.	.30	T.						.09	.01																2.58	
	Hudson	1.90	.12		.01		.18	.17	T.	.01		T.							.52	.04														3.48	
	Champlain																																		
	Connecticut																																		
	do		.55	.78			.32											.20	.06	.25	.07													2.59	
	do		.80	.02			.24	.01										.10	.03	.50														2.77	
	Champlain	1.50		.20	T.		.60												.37	.06														4.31	
	Connecticut	2.51			.03		* .55		.04										.67															4.24	
Massachusetts.																																			
	Connecticut	2.59	T.	.02	T.		.19	.11	T.	T.								.16	.67															5.52	
	Merrimack	1.41	*	1.18			* .47											.13	.37															4.45	
	do	1.11	.41				.43											.43	.33															4.27	
	do	1.31		.28			.20	.07										.11	.23															3.55	
	Coast	1.35	.02	.15	1.		.54	.10	.01	.01								.09	.31															4.20	
	do	1.18	.17	.09			.35	.02		T.								.06	.42															4.16	
	Coast	.27	T.	.12	T.		.28	.06		T.								.08	.11															3.30	
	do	1.12	T.	.10	.04		.42			T.								.11	.42	.74	.35	.17												4.42	
	Merrimack	1.76	*	.20			* .52	.01		T.								.14	.75															5.61	
	do	1.55	.04	.18			.35	.04		T.								.11	.25	.12	.10	.35	.03												



Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean.		
Maine.																																		
Bat Harbor	Maximum	37	36	37	38	40	35	37	42	38	28	7	36	36	42	44	37	35	38	39	38	30	30	38	40	45	50	55	42	35	40	42	38.6	
Bat Harbor	Minimum	22	32	32	32	28	18	19	18	18	10	12	9	10	28	18	26	18	29	18	8	8	18	18	18	28	30	35	30	33	26	28	21.7	
Cottus	Maximum	43	42	47	50	49	33	45	50	46	38	14	41	44	47	54	41	45	47	46	40	40	43	45	48	54	61	69	45	48	37	57	45.9	
Cottus	Minimum	30	35	34	34	24	23	27	28	20	10	14	13	10	6	09	31	33	30	25	16	05	17	14	17	17	30	35	35	29	31	30	24.3	
Eastport	Maximum	38	37	36	32	35	32	35	39	38	27	24	26	29	35	38	36	37	38	25	27	28	28	37	37	41	44	49	35	33	33	38	34.8	
Eastport	Minimum	31	31	30	30	28	28	29	33	26	17	15	13	15	19	32	38	31	28	20	9	18	20	20	24	33	36	28	22	27	26	24	24.0	
Greenville	Maximum	37	35	33	33	36	31	36	36	38	18	19	21	28	33	36	34	39	35	34	16	22	28	31	35	41	55	48	40	40	32	35	33.0	
Greenville	Minimum	27	31	29	28	17	13	23	26	17	7	10	2	1	10	28	27	32	18	14	2	2	8	4	3	7	28	36	26	16	27	24	17.5	
Millinocket	Maximum	43	40	36	37	35	31	37	38	32	27	24	32	34	38	35	35	35	37	22	27	33	34	37	44	48	50	45	44	46	45	39.6		
Millinocket	Minimum	21	31	32	31	23	27	25	28	25	11	8	5	3	1	30	13	33	20	21	1	3	3	1	4	14	27	32	28	12	28	27	18.4	
Orono	Maximum	48	45	37	39	38	38	37	41	41	38	31	31	31	38	43	42	39	39	40	38	32	31	35	37	43	47	50	45	44	46	45	39.6	
Orono	Minimum	30	33	23	23	26	17	37	29	17	10	10	7	4	7	31	24	33	27	29	12	5	16	14	12	14	32	37	31	20	31	25	21	21.7
Portland	Maximum	40	40	39	44	41	34	35	41	35	29	35	34	34	38	45	38	43	38	37	29	33	28	41	35	41	59	59	43	36	33	49	38	34.9
Portland	Minimum	35	34	34	32	25	26	28	29	24	13	16	20	32	31	31	31	31	31	15	11	23	19	27	25	36	40	36	29	31	31	26	7	26.7
Presque Isle	Maximum	42	38	38	35	38	31	35	37	33	28	25	25	30	36	35	39	31	78	36	22	23	31	33	35	39	38	58	50	35	33	35	34.9	
Presque Isle	Minimum	28	27	32	28	25	25	25	28	25	12	15	1	6	0	5	6	25	15	22	5	0	4		2	4	28	30	28	9	25	15	16.4	
Rumford	Maximum	40	38	40	40	37	31	38	39	32	21	18	28	32	36	41	36	41	36	35	23	28	32	38	36	41	52	50	43	40	34	44	36.9	
Rumford	Minimum	27	35	36	30	24	20	33	30	16	12	14	2	12	10	8	32	34	31	29	18	10	9	16	8	20	14	32	35	28	22	32	22.8	
Van Buren	Maximum	43	41	41	35	36	36	36	36	34	24	21	28	32	32	32	32	36	37	28	28	20	32	38	41	55	51	38	34	34	32	35	31.8	
Van Buren	Minimum	28	28	31	28	26	23	25	29	22	4	17	6	8	6	4	23	9	31	15	28	2	3	5	5	4	28	35	38	12	23	18	15.8	
New Hampshire.																																		
Alstead Center	Maximum	41	41	40	37	35	29	34	34	27	23	27	26	28	36	45	43	46	40	30	18	24	30	37	37	42	57	59	50	35	33	46	36.4	
Alstead Center	Minimum	28	30	31	29	22	22	25	27	14	6	10	12	30	28	16	30	36	30	18	11	22	26	34	34	27	34	40	40	30	27	27	30	22.4
Bethlehem	Maximum	41	41	40	34	33	30	35	32	24	18	23	22	29	35	28	16	43	36	33	15	22	25	34	34	47	54	50	45	43	37	38	34.9	
Bethlehem	Minimum	31	34	31	26	11	23	24	25	15	4	10	2	5	6	30	30	30	25	14	5	0	10	12	17	14	37	37	33	30	30	23	20	20.0
Concord	Maximum	44	40	41	43	38	32	36	39	32	26	32	31	34	41	52	38	51	35	34	26	31	27	39	42	49	64	63	37	37	36	50	39.7	
Concord	Minimum	32	35	35	30	25	24	28	28	16	12	15	11	9	9	36	30	29	28	20	11	8	19	13	20	20	36	44	34	31	30	31	24.2	
Franklin	Maximum	43	43	41	43	40	33	38	40	35	28	34	32	34	39	49	39	50	39	35	22	31	31	39	44	49	62	57	49	41	34	43	40.1	
Franklin	Minimum	28	35	41	33	25	21	27	29	21	10	14	8	8	7	34	28	33	27	27	15	6	18	11	19	17	33	37	33	30	30	31	23.5	
Haveret	Maximum	41	45	49	41	38	37	39	36	32	28	31	26	31	39	48	43	50	36	31	23	30	43	38	41	59	61	51	42	41	38	48	39.4	
Haveret	Minimum	22	36	34	30	19	18	27	26	15	0	3	3	3	3	31	27	32	26	22	12	6	13	8	14	13	36	37	33	32	32	30	20.5	
Nashua	Maximum	45	45	45	47	44	40	50	40	35	33	38	35	33	43	54	47	53	49	37	31	34	31	42	46	51	64	71	65	38	34	54	44.1	
Nashua	Minimum	32	35	35	36	28	27	29	30	25	15	16	13	13	15	36	28	33	28	28	10	10	23	16	23	22	35	42	33	32	31	32	26.4	
Plymouth	Maximum	42	41	42	39	44	33	38	37	32	26	28	26	31	38	48	39	46	35	32	26	29	31	36	39	44	59	56	44	42	38	44	37.8	
Plymouth	Minimum	22	35	35	32	23	19	27	27	12	11	14	6	8	2	32	28	34	25	25	13	5	13	6	22	11	32	33	35	30	33	30	21.9	
Vermont.																																		
Burlington	Maximum	39	44	39	36	35	33	34	35	26	23	26	25	32	37	51	47	40	30	16	26	31	27	37	44	59	49	42	43	37	40	36.1		
Burlington	Minimum	32	34	31	23	21	19	27	26	12	12	14	0	11	15	48	30	30	16	4	6	15	17	17	20	40	39	33	29	33	31	28	21.8	
Enosburg Falls	Maximum	45	43	38	35	41	35	34	36	31	22	22	27	28	37	39	18	46	40	31	15	27	34	32	38	51	59	52	50	48	41	37	37.5	
Enosburg Falls	Minimum	30	33	32	25	18	20	24	26	35	9	11	10	11	7	30	25	15	26	12	5	2	2	9	16	6	13	41	36	32	29	33	28	19.0
Northfield	Maximum	39	45	33	40	35	34	33	33	26	25	26	25	30	38	46	41	45	34	31	17	28	33	36	38	43	58	56	40	38	34	41	36.3	
Northfield	Minimum	24	32	32	24	15	13	25	24	8	8	0	5	2	1	27	26	23	23	16	3	5	9	6	15	8	36	35	31	33	31	21	17.3	
St. Johnsbury	Maximum	47	44	41	40	35	38	35	36	35	25	26	27	32	34	42	44	45	43	32	23	27	34	37	39	47	57	55	46	45	43	40	38.5	
St. Johnsbury	Minimum	29	37	34	31	20	14	36	27	14	10	16	7	4	0	31	22	35	23	20	8	3	12	11	15	10	38	35	34	33	33	29	20	20.5
Wells	Maximum	36	38	40	36	34	34	34	34	24	25	26	25	27	35	44	52	48	36	30	20	22	30	34	36	44	52	50	42	42	40	39	35.9	
Wells	Minimum	28	28	29	20	15	22	25	26	16	2	10	1	4	10	34	25	35	28	18	5	0	14	15	17	19	36	36	31	28	32	29	29	29.9
Massachusetts.																																		
Amherst	Maximum	46	40	46	38	44	34	38	38	32	32	34	36	38	41	53	55	53	36	34	28	34	36	39	44	49	62	49	45	38	35	54	42.0	
Amherst	Minimum	28	32	32	28	20	28	28	28	21	18	16	12	13	14	19	32	28	31	23	13	8	22	20	22	29	38	45	38	32	30	32	25.5	
Blue Hill	Maximum	44	44	41	41	40	33	34	37	33	30	32	31	33	40	49	50	45	44	35	26	30	26	38	41	49	57	69	58	32	30	52	40.3	
Blue Hill	Minimum	34	29	31	31	26	29	21	27	24	14	17	14	16	22	34	40	32	34	31	32	25	17	10	21	18	27	29	35	44	31	29	30	26.3
Boston	Maximum	45	40	46	49	45	36	41	46	37	31	38	36	39	45	54	40	49	45	39	31	35	28	45	42	51	64	74	45	37	38	56	43.5	
Boston	Minimum	34	34	36	34	32	32	30	33	24	18	22	20	22	26	38	32	36	32	25	19	16	25	23	30	33	40	45	43	34	34	36	29.9	



Scale of Shadings.









U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

APRIL, 1914

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BY  
JOHN W. SMITH  
DISTRICT FORECASTER AND SECTION DIRECTOR

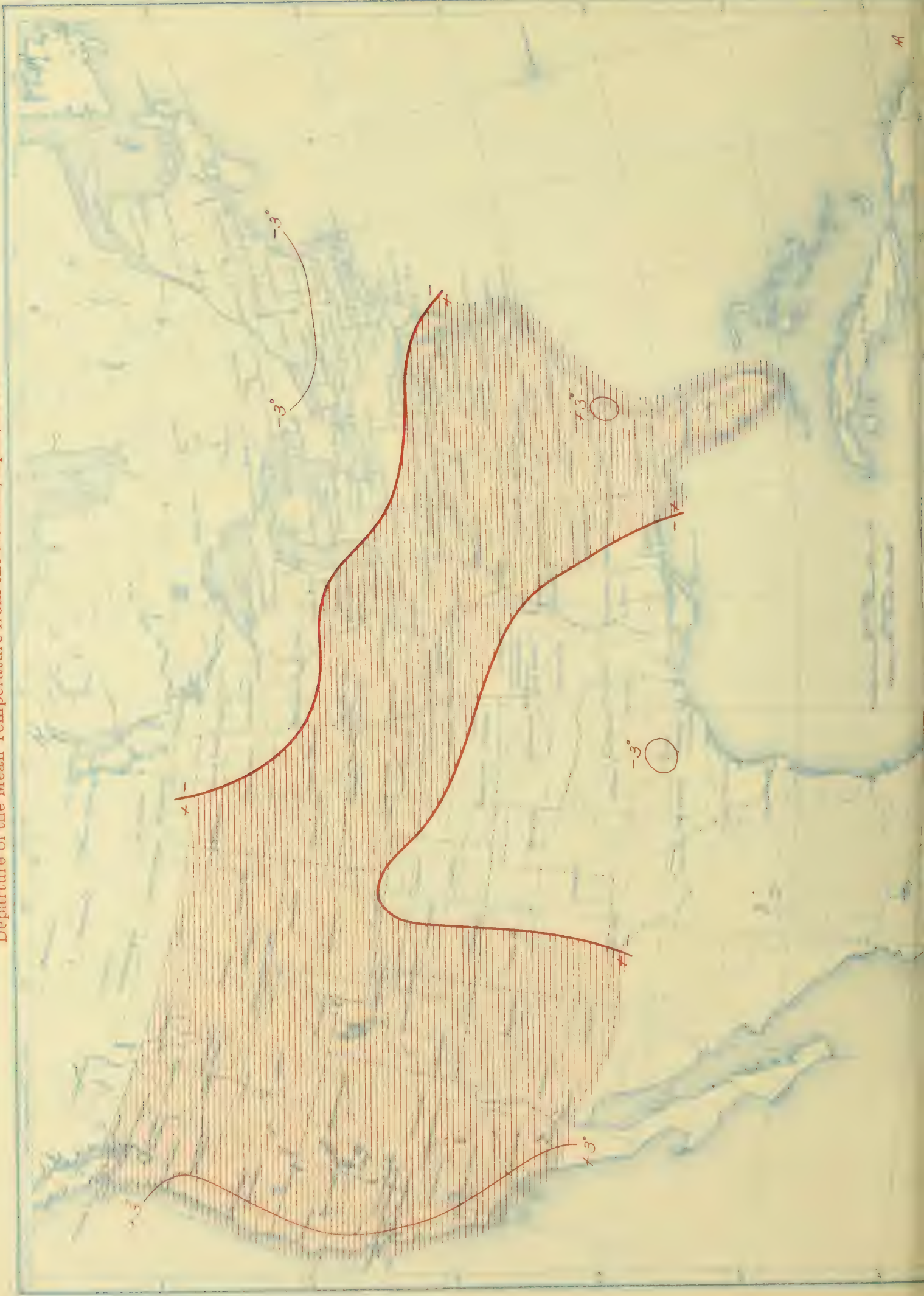
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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
MAY 19, 1914



Departure of the Mean Temperature from the Normal, April, 1914.





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, District Forecaster and Section Director.

VOL. XXVI. BOSTON, MASS., APRIL, 1914. No. 4.

## GENERAL SUMMARY.

The month was colder than usual, with more than an average amount of precipitation. In some localities the rainfall was greater than in any other April for the past 28 years. Snow, to depths of 1 to 6 inches, fell in the northern portions of New Hampshire and Maine on several dates up to the middle of the month. In the remainder of the section there was little or no snow. Owing to the gradual melting of the large amount of snow that was on the ground in the interior of the northern portion of the section at the beginning of the month, but moderate river stages occurred, resulting only in the usual flooding of low lands. The low temperature and excessive moisture retarded the growth of vegetation so that at the end of the month the season was considered to be about two weeks later than usual.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 13 stations reporting, 30.02 inches, was 0.05 of an inch above the normal for the month. The highest monthly mean was 30.04 inches, at Hartford, Conn., and Northfield, Vt. The lowest monthly mean was 30.00 inches, at Eastport, Me. The highest recorded was 30.48 inches, at Concord, N. H., on the 25th. The lowest recorded was 29.16 inches, at Eastport, Me., on the 2d. The monthly range for the section was 1.32 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 57 stations, was 40.8°. The mean departure from the normal for 66 stations having ten or more years' record, was -2.3°, which shows a greater deficiency in temperature than any April of record, except in 1888 and 1907. The deficiency in temperature was somewhat greater in the interior and northern portions of the section than in Connecticut and Rhode Island. In comparison with other years, a lower average April temperature has occurred but twice since the beginning of the section averages in 1888. This was in 1888, when the average was 40.1°, and in 1907, when it was 40.0°. The highest average April temperature during this period was 48.7°, in 1910. The extremes in temperature were not unusual. The average temperature of the several states of the section, was as follows: Maine, 36.9°; New Hampshire, 39.6°; Vermont, 37.9°; Massachusetts, 43.3°; Rhode Island, 42.8°; Connecticut, 44.3°. The average of all the states was below the normal, Maine being 2.4° below; New Hampshire, 2.8°; Vermont, 3.8°; Massachusetts, 2.0°; Rhode Island, 2.2°, and Connecticut, 1.6°. The highest monthly mean was 46.6°, at New London, Conn., the lowest 30.8°, at Van Buren, Me. The highest temperature recorded was 88°, at Westboro, Mass., on the 19th, and at Torrington, Conn., on the 20th. The lowest recorded was -3°, at Greenville, Me., on the 13th, and at Patten, Me., on the 4th. The range for the section was 91°. The greatest local monthly range was 75°, at Greenville, Me.; the least, 27°, at Block Island, R. I. The greatest daily range was 56°, at Van Buren, Me., on the 1st.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 12 stations reporting, was 74 per cent, which was 4 per cent above the normal for the month. The highest monthly average was 85 per cent, at Block Island, R. I.; the lowest, 67 per cent, at Providence, R. I.

## PRECIPITATION.

The average for the section, 88 stations reporting, was 4.66 inches, and the greatest for the month during the past 27 years, except in 1901 and 1904, when it was 6.80 and 5.68 inches, respectively. The driest April during this period was in 1892, when the average amount was 1.02 inches. The departure from the normal for 71 stations having ten or more years' record, was +1.72 inches, the greatest excess that has occurred in April since 1901. At only seven stations of the section was the precipitation below the normal. The average monthly precipitation for the several states was as follows: Maine, 4.18 inches; New Hampshire, 5.95; Vermont, 4.92; Massachusetts, 4.78; Rhode Island, 4.50; Connecticut, 3.98. The amount in all the states was above the normal, the excess in Maine being 1.52 inches; New Hampshire, 3.12; Vermont, 3.16; Massachusetts, 1.60; Rhode Island, 0.85; Connecticut, 0.62. The greatest monthly amount was 11.18 inches, at Benton, N. H.; the least, 1.27 inches, at Houlton, Me. The greatest amount in 24 hours was 3.18 inches, at Newton, N. H., on the 27th. The average number of days with .01 inch or more of precipitation was 12, two days more than the average for the section for April, as determined from the records of the past 27 years. The average snowfall for the section was 4.4 inches, which was 1.0 inch above the average for the section for April as determined from the records of the past 27 years. The greatest average April snowfall during this period was 13.1 inches, in 1907; the least, a trace, in several different years. The average snowfall in the several states was as follows: Maine, 11.5 inches; New Hampshire, 4.1; Vermont, 7.8; Massachusetts, 1.7; Rhode Island, trace; Connecticut, 0.3. The greatest snowfall in any 24 hours was 11 inches, at Presque Isle and Van Buren, Me., on the 21st.

## WIND.

The prevailing direction of the wind was from the northwest, which is the normal direction for the month. The average monthly wind movement for the section, 13 stations reporting, was 9,025 miles, and the average hourly velocity 12.5 miles, which exceeds the normal hourly velocity for the month by 1.2. The greatest monthly wind movement was 13,541 miles, at Block Island, R. I. The least was 5,385 miles, at Concord, N. H. The greatest maximum velocity recorded was 88 miles per hour from the west, at Blue Hill Observatory, Hyde Park, Mass., on the 12th. This maximum velocity has been exceeded in April during the past 27 years only in 1909, when a maximum of 90 miles from the west occurred.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 11; partly cloudy, 7; cloudy, 12, which differs but little from the normal for the section for April of 11 clear, 8 partly cloudy, and 11 cloudy days. The average per cent of possible sunshine, 10 stations reporting, was 49, which was 6 per cent below the normal for the month. The greatest per cent of the possible was 57, at Eastport, Me.; the least was 37, at Burlington, Vt.

## MISCELLANEOUS PHENOMENA.

*Auroras*.—Presque Isle, Me., 24; Enosburg Falls, Vt., 25.  
*Halos, lunar*: Northfield, Vt., 2; Blue Hill and Boston, Mass., 4, 6; Block Island, R. I., 4; Hartford, Conn., 6.  
*Halos, Solar*.—Northfield, Vt., 1, 11, 15; Blue Hill, Mass., 1, 11, 14, 25; Boston, Mass., 1, 15, 18; Somerset, Mass., 11, 18; Hartford, Conn., 9, 11, 18; New Haven, Conn., 14.  
*Thunderstorms* (dates and number of observers reporting on each): Maine—19th, 5; 20th, 2; 21st, 1; 24th, 1. New Hampshire—19th, 5; 20th, 4. Vermont—19th, 6; 20th, 2.



## Climatological Data for April, 1914.

Stations.		Counties.	Elevation, feet.	Length of record, years.	Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.	Cloudy.	Prevailing direction of wind.	Observer.
Maine.																					
Bar Harbor	Hancock	20	28	36.6	-5.1	75	19	15	2	38	3.15	-0.08	1.30	6.0	6	14	11	5	ne.	William Miller.	
Cornish	York	778	50	41.8	-1.0	81	19	16	14	45	5.45	+1.89	1.09	5.0	10	11	8	11	w.	T. H. West.	
Eastport	Washington	53	42	35.6	-2.7	64	19	16	3	28	3.93	+0.99	1.18	11.5	12	7	14	9	s.	U. S. Weather Bureau.	
Fairfield	Somerset	90	29	39.5	+0.5	81	19	15	4	43	4.64	+2.34	1.68	7.5	5	7	16			E. F. Parker.	
Farmington	Franklin	450	17	38.6	-3.8	79	19	13	4	42	4.90	+1.91	0.83	11.5	11	5	13	12	nw.	State Normal School.	
Gardiner	Kennebec	163	22	39.6	-4.0	79	19	16	14	40	5.26	+1.85	1.30	7.5	12	16	2	12	nw.	Samuel D. Soule.	
Greenville	Piscataquis	1,140	10	31.5		72	19	-3	13	34	4.51	+1.67	1.93	20.9	11					U. S. Weather Bureau.	
Houlton	Aroostook	362	12	33.2		65	19	-2	3	38	1.27	-0.81	0.35	18.0	7	15				Bangor & Aroostook R.R.	
Lewiston	Androscoggin	185	40	38.9	-2.9	81	19	20	13	39	5.12	+1.80	1.22	5.4	14	8	11	11	nw.	Union Water Power Co.	
Madison	Somerset	257	11	36.8		79	20	10	4	38	6.42	+2.55	1.60	8.0	8	19	0	11	nw.	William Jardine.	
Millinocket	Penobscot	386	11	34.6		70	19	0	4	41	4.18	+1.06	1.69	19.0	8	10	4	16	w.	Great Northern Paper Co.	
North Bridgton	Cumberland	450	21	40.6	-2.3	81	19	14	4	42	5.12	+1.65	1.28	9.0	10	3	19	8	ne.	G. E. Chadbourne.	
Orono	Penobscot	129	45	40.0	-0.5	75	20	14	3	39	4.71	+1.87	1.56	10.0	6	12	4	14	sw.	Department of Physics.	
Patten	do	550	12	31.7		67	18	-3	4	49	1.40		0.60	14.0	4	14	14	11	ne.	Bangor & Aroostook R.R.	
Pemaquid	Lincoln			37.2		64	19	12	14	39	2.42		1.83			4	20	2	8	sw.	Margaret Adams.
Portland	Cumberland	99	43	39.8	-3.2	77	19	22	4	30	4.42	+1.31	1.16	2.5	13	11	3	16	n.	U. S. Weather Bureau.	
Presque Isle	Aroostook			31.9		66	19	-2	4	47	4.05		1.25	25.0	8	16	6	8	n.	E. M. Libby.	
Rumford	Oxford	505	21	37.6	-3.8	75	19	17	4	37	4.95	1.92	1.27	12.0	14	16	5	9	nw.	Charles A. Mixer.	
Van Buren	Aroostook	510	9	30.8		67	19	0	4	56	2.64		0.95	18.0	6	16	6	8	nw.	J. M. Thomas.	
Winslow	Kennebec	90	19	40.8	-0.4	80	19	18	4	40	5.14	+2.36	1.73	8.0	8	15	2	13	w.	Hollingsworth & Whitne	
New Hampshire.																					
Alstead Center	Cheshire	1,120	10	39.0		79	19	15	4	38	4.92		0.73	6.0	14	14	5	11	nw.	Frank Dewing.	
Benton	Grafton			35.0		76	20	10	13	37	11.18		2.75	6.6	9	4	15	11	n.	State Sanatorium.	
Bethlehem	do	1,470	22	35.9	-4.6	76	19	11	13	34	6.10	+4.08	1.51	4.8	14	10	8	12	sw.	Benjamin Tucker.	
Concord	Merrimack	350	54	40.4	-3.4	82	19	18	14	41	3.87	+1.08	1.07	2.0	14	11	8	11	nw.	U. S. Weather Bureau.	
Durham	Stafford	88	19	42.0	-2.0	87	19	16	14	46	5.89	+3.23	1.29		12	11	5	14	nw.	Agr. Exp. Station.	
Franklin	Merrimack	440	15	41.0	-2.2	85	19	15	14	47	5.76	+2.71	1.14	3.5	15	9	11	10	nw.	Dr. C. P. Webster.	
Grafton	Grafton	863	28	38.1	-3.2	82	19	9	4	48	4.82	+2.30	0.76	9.5	12	15	4	11	w.	P. R. Kimball.	
Hanover	do	603	80	38.7	-2.9	83	19	14	14	44	5.77	+4.08	1.20	0.9	15	8	9	13	nw.	Dartmouth College.	
Keene	Cheshire	506	29	41.8	-2.3	86	19	15	4	47	4.54	+2.23	0.81	3.5	15	12	6	12	nw.	Samuel Wadsworth.	
Nashua	Hillsboro	125	29	44.0	-1.5	87	19	19	14	43	5.34	+2.92	1.25	1.1	15	12	5	13	sw.	C. B. Stevens.	
Newton	Rockingham			40.6	-3.8	86	19	13	14	46	7.16	+4.75	3.18	1.0	11	10	12	8	sw.	W. C. Gale.	
Plymouth	Grafton	500	26	39.2	-2.0	81	19	15	14	47	6.09	+3.80	1.12	6.0	14	10	4	16	nw.	Hattie G. Trow.	
Vermont.																					
Bloomfield	Essex			35.2		74	19	5	4	44	3.88		1.00	8.0	13	12	3	15	s.	Lyman Falls Power Co.	
Burlington	Chittenden	304	6	38.2	-2.5	80	19	16	13	31	4.27	+2.40	1.34	5.5	12	4	11	15	n.	U. S. Weather Bureau.	
Cavendish	Windsor	910	11	39.4		79	19	12	4	45	2.84		0.76	6.0	11	7	12	11		Colonial Power Co.	
Chelsea	Orange	840	19																	W. F. Dewey.	
Cornwall	Addison	517	20	39.2	-6.1	82	19	16	13	38	5.31	+3.75	1.25	7.0	14	7	9	14	s.	C. H. Lane.	
Enosburg Falls	Franklin	601	22	37.6	-5.1	79	19	14	4	41	3.79	+1.55	1.00	7.5	14	8	11	11	n.	L. H. Pomeroy.	
Hyde Park	Lamoille	576	2	37.5		79	19	6	4	43	4.72		0.85	11.0	12	11	7	12	w.	A. V. Wiswell.	
Manchester	Bennington	980	15																	N. M. Canfield.	
Northfield	Washington	876	27	35.4	-4.8	78	19	10	6	42	5.05	+2.96	1.07	12.0	15	5	10	15	sw.	U. S. Weather Bureau.	
Somerset	Windham	2,096	2	37.6		75	19	18	3	27	6.10		1.24	10.2	18	7	7	16	se.	Power Construction Co.	
St. Johnsbury	Caledonia	711	21	38.6	-3.2	78	19	12	4	42	4.47	+2.37	0.75	7.6	12	9	8	13	n.	Fairbanks Museum.	
Wells	Rutland	750	21	38.2	-3.6	75	19	14	13	33	7.42	+5.54	1.37	4.5	16	6	12	12	sw.	E. R. Pember.	
Woodstock	Windsor	700	22	40.2	-1.6	83	19	14	4	45	6.23	+3.53	1.40	7.0	10	6	3	21		John S. Eaton.	
Massachusetts.																					
Amherst	Hampshire	222	25	42.6	-2.8	84	19	22	4	42	6.59	+3.56	0.99	5.2	16	13	4	13	nw.	Agr. Exp. Station.	
Blue Hill	Norfolk	640	30	42.3	-2.2	83	19	22	4	33	5.51	+2.49	1.38	3.5	18	12	2	16	nw.	Blue Hill Observatory.	
Boston	Suffolk	124	44	45.3	0	87	19	27	4	31	5.87	+2.32	1.72	2.0	12	12	5	13	nw.	U. S. Weather Bureau.	
Chestnut Hill	do	124	35	45.4	-1.2	87	19	22	14	38	6.19	+2.74	1.57		15	18	0	12		Met. Water Board.	
Clinton	Worcester	370	18								5.29		1.15	0.6	15					Do.	
Concord	Middlesex	139	24	42.4	-2.7	85	19	19	14	41	4.63	+1.47	1.30	3.0	15	11	5	14	nw.	Fred A. Tower.	
Fall River	Bristol	200	48	44.2	-2.2	73	19	25	4	25	3.73	+0.24	1.30	1.0	18	7	15	8	nw.	C. V. S. Remington.	
Fitchburg	Worcester	550	31	42.4	-3.2	85	19	19	14	40	4.01	+1.04	0.93	5.0	14	14	2	14	nw.	Dr. A. P. Mason.	
Framingham	Middlesex	160	34	44.9	-1.8	85	19	20	14	39	4.82	+1.61	1.64	1.8	13					Met. Water Board.	
Hyannis	Barnstable	31	23	42.8	-3.7	61	19	28	1	25	4.11	+0.90	1.57		11	13	8	9	sw.	C. F. Sleeper.	
Lawrence	Essex	51	30	43.1	-3.0	86	19	20	4	38	5.36	+2.60	2.27	2.0	16	9	14	7	nw.	Essex Company.	
Lowell	Middlesex	100	29	44.6	-0.7	82	19	22	4	34	5.90	+2.42	2.38		12					Props. Locks & Canals.	
Middleboro	Plymouth	53	28	44.0	-0.7	80	19	19	6	37	3.94	+0.82	1.00	0.2	12	9	3	18	sw.	A. R. Gurney.	
Nantucket	Nantucket	47	28	42.6	-1.6	60	8	29	4	20	3.30	+0.66	1.35	T.	13	12	10	8	ne.	U. S. Weather Bureau.	
New Bedford	Bristol	88	102	44.1	-0.3	64	19	27	4	23	3.76	-0.15	1.19		9	14	4	12	sw.	City Engineer.	
Norfolk	Norfolk	244	11	40.2		81	19	13	14	47	5.34		1.20	0.15	10	14	7	9	sw.	Ruby H. Martyn.	
Plymouth	Plymouth		29	42.9		76	20	21	4	32	4.98		1.72	0.5	12	16	6	8	e.	L. B. Knapp.	
Provincetown	Barnstable	40	27	41.8	-3.0	61	19	26	14	24	2.85	-0.05	0.95	T.	8	16	0	14	sw.	Gideon Bowley.	
Rockport	Essex	25	12	42.4		77	19	24	4	28	5.00		1.38		10	12	6	12	nw.	C. F. P. Bearse.	
Rutland	Worcester	1,160	12																	State Sanatorium.	
Springfield	Hampden	199	1	45.2		86	19	24	4	41	4.81		0.70	0.3	14	12	5	13	nw.	U. S. Army.	
Turners Falls	Franklin	200	23	43.2	-2.4.																



## Daily Precipitation for April, 1914.

Stations.		Day of month.																															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Maine.																																	
Ashland	St. John	.20						.32	1.01			.21					.07				.41	.94											
Bar Harbor	Coast	.85				T				T	.75						.20	.05				* 1.96											
Cadillac	Kennebec	.10				T											.28				1.30	.05											
Camden	Saco	.50	.59	T				.10	1.09								.45				.15	.91											
Danforth	Penobscot	1.00						.70	.90								* .60					.42	1.33										
Eastport ***	Coast	.17	.67		.01	.01		.17	.30	1.13			.10				.55	.03				.52	.27	T									
Fairfield	Kennebec	.62		T		.06		T	.83	.84	T		.03	.19	T		.40	.06				.46	.40	T									
Farmington	do	1.08						T	1.68								.70					.29											
Gardiner	do	* 1.00			.05			T	.74	.82			.02				.58					.83	.42										
Greenville ***	do	1.30			T	.03	.06	.54	.92					.05			.61	.05				.33	.53										
Houlton	do	.40	.60		.02			1.93				T	T				.10					.12	.89	.05	.01								
How Brook	St. John	.35							.26								.10					.30	.20										
Lewiston	Penobscot			.20				.10	.25			.10	.12	.08			.10																
Madison	Androscooggin	.19	.81		.02			.08	.57	.60			.03				.57	.02				1.22	.11										
Millinocket	Kennebec	1.30						.52	1.60								.23	.53				.27	1.56										
North Bridgton	Penobscot	.68	.03			T		.34	1.69								.29			.01	.11	1.03	T	T									
Ognessoc	Saco	.90	.01				.01	.01	1.25								.58					1.28											
Orono	Androscooggin	.25						.20	.70			.20					.15					.60											
Patten	Penobscot	1.56						.78									.30					.44	1.43										
Pennsquis	do	.60						.20	T								.20					.40											
Portland ***	Coast	1.83			.03			T									T					.48											
Presque Isle	do	.64	.54	.01	.03			.34	.52	.30							T	.56	T														
Rumford	St. John	.30				.30		.50	.60								T					.22	T										
The Forks	Androscooggin	.51	.40		.04		.03	1.03	.16		.01	.02					.55			T	.21	1.27	T										
Van Buren	Kennebec																																
Winslow	St. John	T						.65														.35	.40	.95	.25								
	Kennebec	* 1.29		.08				* 1.73									.39					1.38											
New Hampshire.																																	
Alstead Center	Connecticut	.34	.53	T		T		.12	.61	.53			.01				.14	T				.62	.33										
Benton	do		.65	2.00	T		1.00			.75							2.75	T				1.18	1.35										
Bethlehem	do	.29	1.05	T		.08		T	.84	.49			.16				.05	.02				.07	1.51	.66									
Brookline	Merrimack	.68	.05		.05			.60	.65								.90					.17											
Concord ***	do	.61	.16	.01	T			.27	.48	.02		T	T				.08					.10	.50	.10	T	T							
Durham	do	.06	.83	.28		.05		.55	.57								.72					.01	.55										
Franklin	do	.22	.70		T			.10	.49	.56			.02	T			.62	.07				.68	.46										
Grafton	do	.22	.65					.04	.63								.62					.76	.40										
Hanover	Connecticut	* 1.20			T			.03	.80	.25		.13	.09				.38					.84	.07										
Keene	do	.15	.65	.06				.17	.33	.67		.03					.29	.07				.53	.25										
Nashua	Merrimack	.07	.69	.03		T		.31	.23	.66							.97	.06				.09	.17										
Newton	do	.57	.35	.01		.02		.38	.69								T	1.08				.11											
Plymouth	do	.26	.80		T			.06	.75	.71			.06				.47	T				T	1.12	.37									
Vermont.																																	
Bloomfield	Connecticut		.63			.02		1.00	.80	.01		.21					.17					.34	.30										
Burlington ***	Champlain	.48	.16		T	.01		.05	1.29	T		T	T				.53					.48	T										
Cavendish	Connecticut	T	.06					.10	.18	.11			.18				.55					.54	.18										
Chelsea	do																																
Cornwall	Champlain	.20	.45		.16		.01	1.00	.20								.44	T		.05	.70	.55											
Enosburg Falls	do	.05	.33	T	.04	T		1.00	.40			T	.02				.60	.02		.03	.63	.09											
Hyde Park	do		.67		.10			.83	.53	T			.03				.85					.53	.17										
Manchester	Hudson																																
Northfield ***	Champlain	.39	.21	T	.04		.03	1.07	.02	T	.13	.02					.66					.21	.92										
Somerset	Connecticut	* 1.21	.15		* .13	.16	* 1.24		.25								.45				.05	1.24											
St. Johnsbury	do	T	.61		.02		.67	.48			.08	T					.40				.75	.25	.04										
Vernon	do	1.01			.13	.54	.83		.08								.13				.13	.64											
Wells	Champlain	.21	.94	.08		T		.04	1.37	.89	.10	.05					.79				.06	1.16	.05										
Woodstock	Connecticut	* .63			.04			1.40									.85				.49	.66											
Massachusetts.																																	
Amherst	Connecticut	.54	.22	.03		T		.83	.99	.25	.01	.02					.28	.99				T	.96										
Ashland	Merrimack	.22	* .14		.02			* 1.09			.02						1.36					.19											
Bakers Bridge II	do							.95	.70								1.12																
Bedford	do	.08	.50	.04		T		.39	.04	.53		.05					.06	.96				.13											
Blue Hill	Coast	.04	.43	.05	.01			.40	.09	.79		.08					.08	1.38	.08			.43	.01										
Boston ***	do	.17	.26	T		T		.51	.62	.25		.03					.32	1.24	T			.26	.43	.73									
Brookton	Coast	T	.32	.15	.08		.24	T	.77								.89	.12				.05	.15										
Chestnut Hill	do	.29	.30		.08	.08		* .36	.83			.05					1.50	.10				.23											
Clinton	Merrimack	* .35	.19		T			* .1.27			.03						* 1.15					.22											
Concord	do																																



## Daily Temperatures for April, 1914.

Stations.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean.
Maine.																																	
Bar Harbor	Maximum	38	34	35	38	40	36	40	42	38	40	42	38	46	50	40	34	42	62	78	65	55	52	45	50	42	45	48	60	52	60	46.2	
	Minimum	26	15	18	21	21	24	25	30	28	28	26	20	18	20	24	22	24	36	40	36	40	32	28	30	28	30	22	26	33	25	42	35
Cornish	Maximum	60	44	45	47	45	51	37	36	56	54	57	58	44	59	52	38	62	73	84	70	56	62	52	61	58	40	49	62	55	59	54.2	
	Minimum	22	32	25	18	25	18	27	31	31	26	23	29	21	16	28	28	32	28	44	53	32	28	31	21	24	33	36	43	40	37	29.4	
Eastport	Maximum	42	33	31	36	39	41	39	38	50	43	46	46	29	36	34	32	41	53	64	50	33	51	41	43	46	43	56	60	50	45	43.0	
	Minimum	28	19	16	17	27	30	30	32	35	27	31	26	19	18	29	25	27	28	36	32	28	26	24	29	30	31	36	40	38	33	28.2	
Greenville	Maximum	48	38	25	32	39	36	41	33	36	39	45	44	26	38	39	30	48	57	72	57	34	44	34	41	48	40	51	54	47	37	41.8	
	Minimum	20	22	11	8	12	10	9	27	27	19	17	21	-3	9	21	24	24	25	32	32	21	24	16	23	17	26	32	41	33	30	21.2	
Millinocket	Maximum	46	43	29	37	40	41	16	35	42	41	47	49	38	40	40	37	52	62	70	58	35	37	40	48	54	51	62	60	54	49	46.1	
	Minimum	15	23	3	0	4	15	20	29	30	20	18	33	16	15	25	25	29	21	36	33	25	26	21	27	18	24	34	40	36	32	23.1	
Orono	Maximum	48	49	49	41	40	41	43	39	49	50	53	54	44	45	44	53	64	74	75	63	56	53	52	56	58	61	61	60	54	52	52.6	
	Minimum	21	23	14	16	18	17	26	31	32	22	28	33	18	16	28	27	28	25	41	48	27	28	24	25	22	28	38	39	40	35	27.3	
Portland	Maximum	41	38	36	41	36	41	35	35	51	48	45	58	35	47	40	34	56	60	77	64	46	61	45	55	45	40	46	56	52	53	47.3	
	Minimum	31	31	28	22	31	21	32	32	34	28	34	28	22	24	34	29	30	37	47	35	35	34	31	33	32	34	40	40	37	38	32.3	
Presque Isle	Maximum	52	48	32	38	35	38	40	38	42	40	48	46	33	37	35	38	48	60	66	56	34	42	36	40	47	49	52	60	50	50	44.3	
	Minimum	5	20	0	-2	0	12	12	22	33	20	30	30	11	10	12	15	20	21	36	30	22	16	18	20	10	25	38	39	32	23	19.5	
Rumford	Maximum	50	37	30	37	40	41	41	36	44	43	50	52	28	46	45	37	55	64	75	55	40	51	46	52	52	45	60	50	52	46.4		
	Minimum	23	30	23	17	25	20	23	31	30	30	30	25	25	17	19	30	29	35	31	38	39	32	30	26	32	25	32	35	42	39	34	28.9
Van Buren	Maximum	59	39	30	35	37	39	42	36	42	37	65	44	33	36	40	47	61	67	54	33	41	35	39	43	48	51	56	47	66	43	43.4	
	Minimum	3	22	3	0	0	14	11	22	30	20	23	29	11	5	4	12	21	31	36	27	22	15	17	20	8	20	34	37	31	27	18.2	
New Hampshire.																																	
Alstead Center	Maximum	46	37	34	35	39	40	32	45	40	43	50	51	41	55	43	36	52	65	79	72	47	58	44	55	50	42	45	61	55	49	48.1	
	Minimum	27	30	25	15	24	18	27	30	38	26	26	31	17	18	30	27	33	33	47	47	28	32	27	28	34	32	35	41	38	33	29.9	
Bethlehem	Maximum	52	43	27	35	36	38	34	48	48	40	46	47	23	47	49	38	49	62	76	59	43	46	38	48	54	42	58	59	56	46	45.9	
	Minimum	20	25	17	14	21	12	20	28	24	22	32	23	11	13	27	27	23	30	46	43	25	24	22	24	24	33	38	43	35	32	25.9	
Concord	Maximum	51	42	38	38	42	44	34	36	46	46	56	56	33	59	45	36	58	69	82	62	44	63	46	57	49	41	13	61	54	52	49.6	
	Minimum	24	32	24	21	29	24	30	33	30	28	23	26	21	18	32	31	35	30	47	45	31	31	31	32	29	34	41	44	38	37	31.2	
Franklin	Maximum	53	40	37	42	41	45	37	34	45	48	56	58	41	61	52	39	56	70	85	79	51	62	50	57	53	40	49	61	57	52	51.8	
	Minimum	23	33	27	19	27	20	28	31	33	28	24	33	20	16	30	29	32	27	38	50	33	27	29	32	26	33	36	44	46	37	30.2	
Hanover	Maximum	50	38	36	40	41	43	32	39	30	43	54	51	34	58	51	39	55	69	83	59	44	60	46	56	55	43	54	62	59	53	49.7	
	Minimum	20	30	22	16	28	18	26	25	29	28	18	15	17	14	31	30	31	26	41	44	30	22	27	26	29	33	36	44	39	35	27.7	
Nashua	Maximum	55	47	44	44	48	48	46	38	51	52	55	59	45	61	55	37	60	73	87	75	59	67	61	61	59	44	50	62	61	52	55.1	
	Minimum	25	34	31	21	28	22	32	33	35	27	37	37	24	19	34	32	33	30	50	57	36	31	33	28	39	34	41	43	43	33	33.0	
Plymouth	Maximum	51	38	35	39	42	42	36	33	43	44	53	53	31	56	51	39	52	66	81	68	49	56	49	55	55	44	52	60	55	50	49.5	
	Minimum	26	30	24	16	25	22	26	32	32	26	21	29	18	15	26	30	33	26	31	19	32	23	28	32	23	33	35	43	43	36	28.9	
Vermont.																																	
Burlington	Maximum	47	35	31	38	38	37	35	35	31	45	47	48	30	49	51	36	54	66	80	56	44	55	44	53	56	41	59	64	45	48	46.7	
	Minimum	26	27	21	19	26	22	25	32	28	28	33	22	16	18	29	30	28	35	56	27	27	32	28	31	37	28	38	45	35	33	29.7	
Enosburg Falls	Maximum	50	38	31	39	40	37	37	38	36	46	46	45	29	43	55	47	56	67	79	10	44	54	45	54	55	51	65	65	57	51	48.3	
	Minimum	22	28	19	14	21	19	19	32	30	27	30	26	11	16	22	22	26	26	54	31	27	30	25	20	26	39	35	35	34	28	25.4	
Northfield	Maximum	45	33	24	36	34	39	32	39	31	44	46	47	28	55	48	37	50	65	78	50	39	55	40	52	52	35	53	64	51	47	45.3	
	Minimum	17	26	17	11	14	10	24	32	27	26	26	22	15	13	24	28	26	28	40	31	27	27	26	24	27	33	42	35	30	25	24.4	
St. Johnsbury	Maximum	51	40	33	38	36	42	37	35	39	46	49	50	38	47	55	52	53	65	78	78	49	55	53	53	55	52	59	61	61	51	50.4	
	Minimum	17	30	20	12	24	15	19	30	30	24	22	31	15	13	25	29	28	26	36	48	28	27	26	22	23	33	45	39	35	26	26.8	
Wells	Maximum	46	37	30	32	34	37	38	50	50	41	44	46	34	51	50	40	44	63	75	60	43	58	48	52	56	54	50	62	60	44	47.3	
	Minimum	26	26	20	16	20	16	27	33	29	25	30	30	14	18	29	26	24	33	56	41	21	31	24	38	30	36	34	44	36	32	29.0	
Massachusetts.																																	
Amherst	Maximum	48	45	40	42	43	46	36	56	45	50	51	60	44	60	48	35	60	72	84	60	50	65	52	62	55	42	53	62	55	52	52.5	
	Minimum	26	34	26	22	30	24	32	33	29	28	32	31																				



Scale of Shading.





## Day of month.

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \*\*\* Regular Weather Bureau station: precipitation is for the 24-hour period, midnight to midnight.

†† Post-office addresses of these stations are as follows: Bikers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomogee, New London Water Works, New London, Conn.

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U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

NEW ENGLAND SECTION

MAY, 1914

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BY  
JOHN W. SMITH  
DISTRICT FORECASTER AND SECTION DIRECTOR

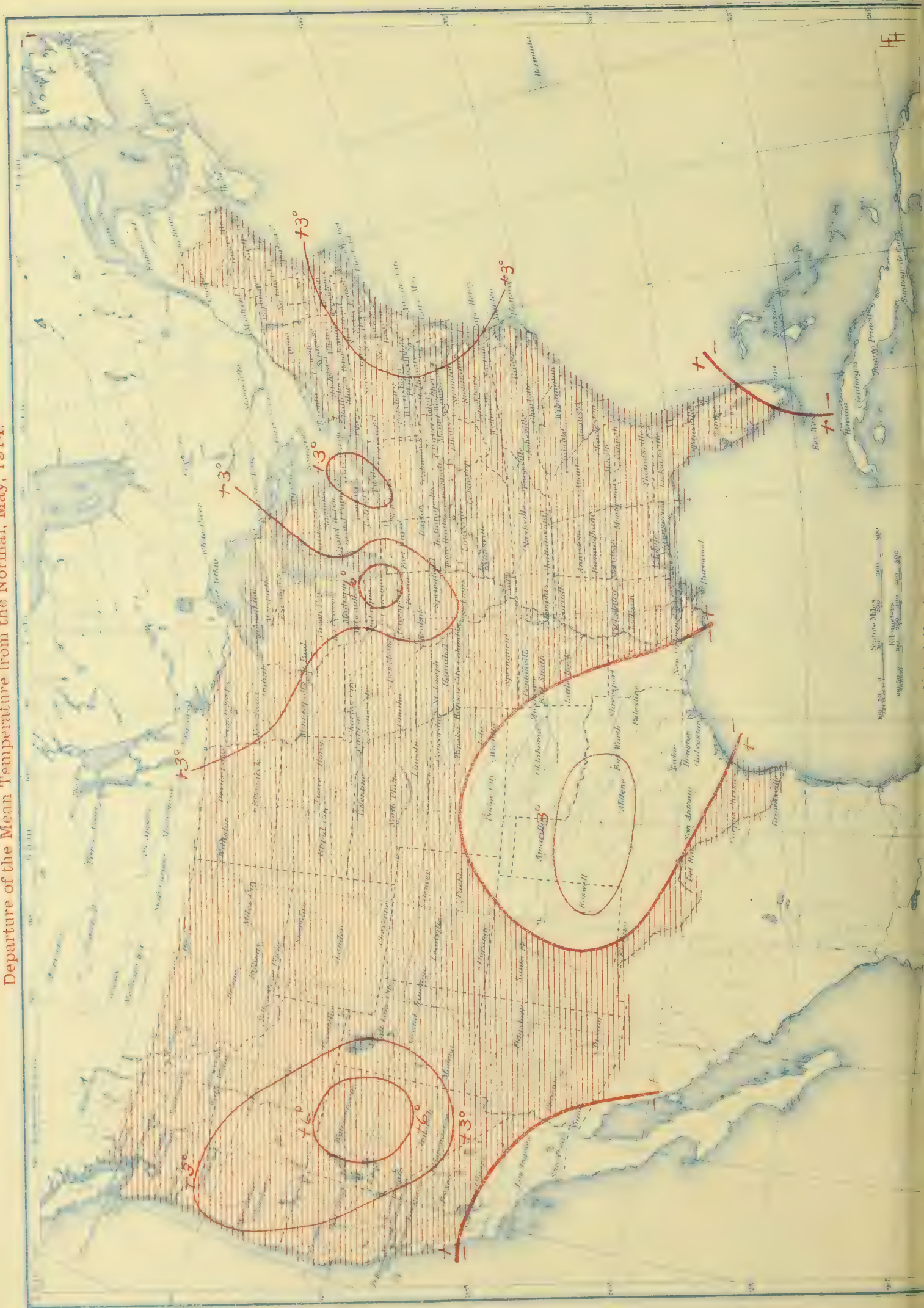
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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
JUNE 22, 1914



Departure of the Mean Temperature from the Normal, May, 1914.





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, District Forecaster and Section Director.

VOL. XXVI.

BOSTON, MASS., MAY, 1914.

No. 5.

## GENERAL SUMMARY.

Fair and cool weather prevailed during the first three days, minimum temperatures somewhat below the freezing point occurring in the northern states of the section. From the 4th until the 13th, inclusive, there was much cloudiness, with rain early every day. The rainfall during this time was general and heavy throughout the section, except in northern Maine and parts of New Hampshire and Vermont. During the remainder of the month there was no rain other than scattered light showers. Snow fell in small amounts in the extreme northern portion of the section at intervals during the first week. The fair and warmer weather that prevailed after the 13th was favorable for the growth of vegetation, although it remained less advanced than usual at the end of the month. There were no maging frosts.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 15 stations reporting, 30.04 inches, was 0.06 of an inch above the normal for the month. The highest monthly mean was 30.06 inches, at Fall River, Mass. The lowest monthly mean was 30.01 inches, at Eastport, Me. The highest recorded was 30.51 inches, at New Haven, Conn., and Fall River, Mass., on the 14th, and at Rutland, Mass., on the 20th. The lowest recorded was 29.41 inches, at Nantucket, Mass., on the 6th. The monthly range for the section was 1.10 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 68 stations, was 56.8°, and 3.6° above that of the month last year. The mean departure from the normal for 68 stations reporting ten or more years' record, was +1.7°. The excess in temperature was somewhat greater in Maine, Massachusetts and Connecticut, than in Vermont, New Hampshire and Rhode Island. In comparison with other years extending back to 1888, the average temperature of May has been lower in 19 years, and lower in 7 years. The warmest May during this period was in 1911, when the average temperature was 60.6°, and the least in 1907 with an average temperature of 49.9°. The minimum temperature for the month, 99°, although not exceeded, that which has occurred in New England in May, was somewhat higher than usual, and at some stations was higher than previous record for this month. The average temperature for the several states of the section, was as follows: Maine, 54.5°; New Hampshire, 56.1°; Vermont, 55.7°; Massachusetts, 57.9°; Rhode Island, 56.6°; Connecticut, 59.0°. The average of all states was above the normal, Maine being 2.1° above; New Hampshire, 1.0°; Vermont, 1.3°; Massachusetts, 2.0°; Rhode Island, 1.6°; and Connecticut, 2.5°. The highest monthly mean was 62.2°, at Westboro, Mass., the lowest 48.4°, at Eastport, Me. The highest temperature recorded was 99°, at Durham, N. H., on the 27th. The lowest recorded was 21°, at Keene, N. H., on the 2d. The range for the section was 78°. The greatest local monthly range was 71°, at Keene, N. H.; the daily range, 41°, at Block Island, R. I. The greatest daily range was at Houlton, Me., on the 19th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 15 stations reporting,

was 71 per cent, which was 4 per cent below the normal for the month. The highest monthly average was 83 per cent, at Block Island, R. I.; the lowest, 63 per cent, at New Haven, Conn.

## PRECIPITATION.

The average for the section, 88 stations reporting, was 2.15 inches, which was 1.17 inches below the average of May, 1913. Since 1888 the average precipitation in May has been less in 4 years, and greater in 22 years. The least amount in any May in this time was 0.68 of an inch, in 1903; the greatest, 5.83 inches, in 1901. The departure from the normal for 73 stations having ten or more years' record, was -1.46 inches. At only 3 stations in the section was the amount above normal. The average deficiency was greatest in Vermont, and least in Massachusetts. The average precipitation for the several states was as follows: Maine, 1.62 inches; New Hampshire, 1.61; Vermont, 0.93; Massachusetts, 2.87; Rhode Island, 2.74; Connecticut, 2.83. In all the states the amounts were below the normal, the deficiency in Maine being 1.88 inches; New Hampshire, 1.17; Vermont, 2.27; Massachusetts, 0.72; Rhode Island, 1.24; Connecticut, 1.18. The greatest monthly amount was 4.79 inches, at Hyannis, Mass.; the least, 0.36 of an inch, at Burlington, Vt. The greatest amount in 24 hours was 2.64 inches, at Hyannis, Mass., on the 6th. The average number of days with .01 inch or more of precipitation was 6, 5 less than the usual number for the month, as determined from the records of the past 27 years.

## WIND.

The prevailing direction of the wind was from the northwest, the normal direction for the month is from the southwest. The average monthly wind movement for the section, 14 stations reporting, was 7,453 miles, and the average hourly velocity 10.3 miles, 0.3 above the usual hourly movement for May. The greatest monthly wind movement was 11,541 miles, at Block Island, R. I. The least was 4,222 miles, at Concord, N. H. The highest velocity recorded was 48 miles per hour from the northwest, at Providence, R. I., on the 1st. This is lower than the usual maximum velocity in May.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 16; partly cloudy, 8; cloudy, 7, which compares with the normal for May of 11 clear, 9 partly cloudy, and 11 cloudy days. The average per cent of possible sunshine, 11 stations reporting, was 60, which was 5 per cent above the normal for the month. The greatest per cent of the possible was 72, at Amherst, Mass.; the least was 48, at Eastport, Me.

## MISCELLANEOUS PHENOMENA.

*Auroras*.—Blue Hill, Mass., 31; Boston, Mass., 31; Hingham, Mass., 31; Leominster, Mass., 31.

*Halos, Lunar*.—Boston, Mass., and New Haven, Conn., 3.

*Halos, Solar*.—Northfield, Vt., 8; Somerset, Mass., 11, 27; New Haven, Conn., 3.

*Thunderstorms* (dates and number of observers reporting on each): Maine—8th, 2; 23d, 1; 26th, 4; 27th, 3; 28th, 2; 31st, 3. New Hampshire—12th, 2; 13th, 1; 15th, 1; 26th, 2; 27th, 2; 31st, 1. Vermont—13th, 1; 22d, 1; 23d, 1; 27th, 1; 28th, 1; 30th, 2. Massachusetts—4th, 3; 5th, 7; 9th, 5; 12th, 10; 13th, 10; 25th, 1; 26th, 8; 27th, 3. Rhode Island—4th, 1; 5th, 5; 12th, 2. Connecticut—5th, 12; 8th, 1; 9th, 8; 10th, 1; 11th, 1; 12th, 4; 13th, 3; 26th, 2; 27th, 6; 30th, 3.

*Killing frosts*.—Cornish, Me., Concord, N. H., Bloomfield, Vt., and Blue Hill, Mass., 16; Eastport, Me., 1; North Bridgton, Me., 12, 16; Portland, Me., Norfolk, Mass., and Kingston, R. I., 1, 2; Grafton, N. H., 1, 7, 15; Nashua, N. H., 1, 3, 7, 16, 17; Plymouth, N. H., 7, 16; Northfield, Vt., 1, 2, 3, 7; Amherst, Mass., 1, 16; Nantucket, Mass., 2; Southington, Conn., 1, 2, 16.



## Climatological Data for May, 1914.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.					Precipitation, in inches.					No. of days—					Observer.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.	Cloudy.		Prevailing direction of wind.
Maine.																				
Bar Harbor	Hancock	20	28	54.0	+1.7	92	27	30	16	38	1.30	-2.20	1.30	T.	1	13	11	7	sw.	William Miller.
Cornish	York	778	59	57.3	+2.7	93	27	26	11	44	1.57	-1.89	1.00	T.	5	13	13	5	sw.	T. H. West.
Eastport	Washington	53	42	48.4	+1.5	87	27	29	2	40	0.80	-3.00	0.21	T.	8	5	13	5	sw.	U. S. Weather Bureau
Fairfield	Somerset	90	29	56.0	+1.9	90	21	26	1	43	0.73	-2.21	0.61	0	2	15	9	7	nw.	E. F. Parker.
Farmington	Franklin	450	17	56.4	+2.3	90	26	29	1	47	1.62	-2.22	1.32	0	3	15	9	7	nw.	State Normal School.
Gardiner	Kennebec	163	22	55.0	-0.3	90	26	29	1	41	1.93	-1.70	1.30	0	5	21	5	5	sw.	Samuel D. Soule.
Greenville	Piscataquis	1,140	10	52.1		87	27	23	1	43	1.70	-1.72	0.76	0.1	3	19	7	5	sw.	U. S. Weather Bureau
Houlton	Aroostook	362	12	52.8		90	26	26	1	53	1.20	-1.00	0.50	0	3	12	13	6	nw.	Bangor & Aroostook
Lewiston	Androscoggin	185	40	56.0	+1.4	90	26	33	1	41	2.44	-1.02	1.92	0	6	12	13	6	nw.	Union Water Power Co.
Madison	Somerset	257	11	53.8		92	27	27	1	45	2.41	-1.67	1.75	0	5	19	5	7	sw.	William Jardine.
Millinocket	Penobscot	386	11	54.6		91	27	26	16	48	1.11	-2.05	0.60	0	5	17	5	9	sw.	Great Northern Paper Co.
North Bridgton	Cumberland	450	21	57.2	+2.3	90	27	30	16	41	1.52	-2.09	1.14	0	5	12	16	3	sw.	G. E. Chadbourn.
Orono	Penobscot	129	45	56.4	+3.7	88	27	27	1	41	1.58	-1.80	0.58	0	3	15	8	8	sw.	Department of Physics
Patten	do.	550	12	54.2		91*	27	25*	1	53*	1.00		1.00	0	1	15*	3*	8*	se.	Bangor & Aroostook
Pemaquid	Lincoln																			Margaret Adams.
Portland	Cumberland	99	43	55.4	+1.9	92	26	33	13	35	2.02	-1.65	1.11	T.	7	12	5	14	sw.	U. S. Weather Bureau
Presque Isle	Aroostook		5	53.2		90	26	23	1	50	2.74		0.65	0	6	18	9	4	w.	E. M. Libby.
Rumford	Oxford	505	21	55.7	+2.0	89	27	32	1	38	1.75	-1.74	1.47	0	6	23	3	5	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	9	50.1		85	26	22	1	45	2.19		0.56	T.	9	17	8	6	nw.	J. M. Thomas.
Winslow	Kennebec	90	19	57.2	+3.6	91	26	30	1	43	1.12	-2.13	0.88	0	4	17	5	9	w.	Hollingsworth & Whitney
New Hampshire.																				
Alstead Center	Cheshire	1,120	10	57.1	-0.8	88	26	27	1	40	2.06	-0.60	0.72	1.0	6	25	3	3	nw.	Frank Dewing.
Benton	Grafton		5	52.5		85	25	29	2	37	0.90		0.48	0	5	19	8	4	sw.	State Sanatorium.
Bethlehem	do.	1,470	22	54.2	+0.2	85	27	26	1	38	1.16	-1.90	0.53	0	10	18	7	6	sw.	Benjamin Tucker.
Concord	Merrimack	350	54	57.0	+1.3	93	27	32	16	39	1.54	-1.70	0.69	0.5	6	17	6	8	nw.	U. S. Weather Bureau
Durham	Stafford	88	19	57.2	+2.4	99	27	31	1	45	1.22	-1.45	0.75	0	3	22	2	7	nw.	Agr. Exp. Station.
Franklin	Merrimack	440	15	57.4	+1.1	95	27	30	1	43	1.53	-1.33	0.57	0.5	7	15	12	4	w.	Dr. C. P. Webster.
Grafton	Grafton	863	28	53.4	+0.1	90	27	25	1	45	1.39	-2.21	0.63	2.0	4	22	5	4	w.	P. R. Kimball.
Hanover	do.	603	80	56.3	+0.9	91	27	30	1	43	1.82	-0.91	0.80	T.	7	10	14	7	nw.	Dartmouth College.
Keenes	Cheshire	506	29	56.7	+0.4	92	27	21	2	45	1.70	-1.68	0.77	0	6	19	8	4	nw.	Samuel Wadsworth.
Nashua	Hillsboro	125	29	60.3	+3.1	97	27	31	1	41	2.43	-0.98	1.07	0	6	12	12	2	nw.	C. B. Stevens.
Newton	Rockingham		26	55.8	+0.6	93	26	29	16	43	2.53	-1.10	1.10	T.	1	14	13	4	nw.	W. C. Gale.
Plymouth	Grafton	500	26	55.2	+1.6	88	26	28	16	45	1.04	-2.32	0.46	T.	3	18	2	11	nw.	Hattie G. Trow.
Vermont.																				
Bloomfield	Essex	7	53.0			89	27	24	1	48	0.89		0.25	0	8	17	8	6	s.	Lynas Falls Power Co.
Burlington	Chittenden	404	6	57.2	+3.3	90	27	32	1	32	0.36	-2.47	0.09	0	7	12	12	7	s.	U. S. Weather Bureau
Cavendish	Windsor	910	11	57.0		93	27	26	1	45	1.09		0.80	0	4	15	9	7	n.	Colonial Power Co.
Chelsea	Orange	840	19	54.1	+1.5	90	27	23	2	45	0.65	-1.99	0.38	0	6	18	9	4	n.	W. F. Dewey.
Cornwall	Addison	517	20	56.0	+0.4	90	27	26	2	41	1.02	-2.12	0.40	0	6	15	8	3	n.	C. H. Lane.
Enosburg Falls	Franklin	601	22	56.0	+0.4	90	27	26	2	41	5.64	-3.13	0.30	0	5	20	8	3	n.	L. H. Pomeroy.
Hyde Park	Lamoille	576	2	55.5		89	27	28	3	47	0.52		0.17	0	8	17	7	7	w.	A. V. Wiswell.
Manchester	Bennington	980	15	56.0		89	27	28	3	47	0.52		0.17	0	8	17	7	7	w.	N. M. Canfield.
Northfield	Washington	876	27	53.2	-0.3	87	27	24	2	41	0.90	-1.90	0.38	0	9	15	8	8	s.	U. S. Weather Bureau
Somerset	Windham	2,096	2	57.6		85	27	31	13	30	2.35		1.06	0	6	15	10	6	ne.	Powers Construction.
St. Johnsbury	Caledonia	711	21	56.5	+1.4	89	27	29	2	43	0.50	-2.24	0.10	0	10	17	8	6	n.	Fairbanks Museum.
Wells	Rutland	750	21	57.0	+1.6	88	27	28	1	33	1.06	-2.30	0.52	0	6	13	14	1	s.	E. R. Pomeroy.
Woodstock	Windsor	700	22	56.0	+1.1	90	27	26	2	47	1.20	-2.01	0.70	3.0	5	12	9	10	n.	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	25	58.8	+1.8	91	27	27	2	39	3.56	-0.27	1.03	0	11	24	3	4	nw.	Agr. Exp. Station.
Blue Hill	Norfolk	640	30	58.1	+2.6	92	27	34	2	31	2.95	-0.82	1.01	0	9	13	7	11	w.	Blue Hill Observatory.
Boston	Suffolk	124	44	60.3	+3.2	95	27	38	1	29	2.78	-0.73	1.29	0	7	10	11	10	w.	U. S. Weather Bureau
Chestnut Hill	do.	124	35	60.0	+2.1	95	27	36	1	36	2.77	-0.79	1.18	0	7	26	0	5	.....	Met. Water Board.
Clinton	Worcester	370	18	58.0		92	27	33	2	36	2.32	-0.41	1.11	0	7	14	11	6	nw.	Do.
Concord	Middlesex	139	21	58.0	+2.2	92	27	33	2	36	2.32	-0.41	1.11	0	7	13	14	4	sw.	Fred A. Tower.
Fall River	Bristol	200	48	59.2	+2.4	87	27	34	1	28	2.41	-1.82	1.58	0	7	19	7	7	nw.	C. V. S. Remington.
Fitchburg	Worcester	550	31	59.8	+2.5	95	27	32	1	33	1.90	-1.56	0.81	0	7	19	7	7	nw.	Dr. A. P. Mason.
Framingham	Middlesex	160	34	60.0	+1.9	94	27	33	1	37	2.82	-0.57	.....	0	9	15	10	10	sw.	Met. Water Board.
Hyannis	Barnstable	31	23	55.6	-0.9	93	27	37	2	33	4.79	+1.17	2.64	0	10	11	12	8	sw.	C. F. Sleeper.
Lawrence	Essex	51	30	58.8	+0.7	94	27	33	2	37	2.35	-1.36	1.04	0	6	13	14	4	w.	Essex Company.
Lowell	Middlesex	100	29	60.0	+2.5	94	27	33	1	34	2.54	-1.16	1.13	0	4	10	10	11	nw.	Prop. Locks & Canal.
Middleboro	Plymouth	53	28	57.8	+2.5	92	27	30	2	41	2.31	-1.69	1.49	0	6	10	10	11	nw.	A. R. Gurney.
Nantucket	Nantucket	47	28	53.6	+0.6	77	28	35	1	22	3.38	+0.71	1.96	0	11	13	10	8	sw.	U. S. Weather Bureau
New Bedford	Bristol	88	102	58.2	+3.5	87	27	36	1	26	2.62	-1.43	0.85	0	5	18	7	6	sw.	City Engineer.
Norfolk	Norfolk	211	11	56.4		95	27	26	2	49	3.04		0.97	0	6	20	8	3	sw.	Ruby H. Martyn.
Plymouth	Plymouth	29	55.1			82	28	31	2	30	2.84		1.47	0	6	20	5	9	sw.	L. B. Knapp.
Provincetown	Barnstable	40	27	55.3	+1.0	82	28	37	1	27	2.18	-0.62	0.74	0	6	22	4	9	sw.	Gideon Bowley.
Rockport	Essex	25	12	54.5		83	27	34	1	26	4.46		0.76	0	5	12	8	11	sw.	C. F. P. Bearse.
Rutland	Worcester	1,160	12	57.8		88	26	30	1	34	3.38		1.20	0	9	20	7	3	nw.	State Sanatorium.
Springfield	Hampden	199	1	61.6		94	26	31	2	38	3.72		1.60	0	9	14	9	8	nw.	U. S. Army.
Turners Falls	Franklin	2																		



## Daily Precipitation for May, 1914.

		Day of month.																																	
Stations.	Watershed.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total.		
Maine.																																			
Ashland	St. John				.02	.06					.51	.11			.13										.25				.36		.25		1.65		
Bar Harbor	Coast									1.30				T.											T.		T.				T.	T.	1.40		
Cambridge	Kennebec																																		
Cornish	Saco				.09	.18				.10	.90		T.	.30																			1.55		
Danforth	Penobscot				*	.15					.35																				*	.26	0.79		
Eastport***	Coast		T.			.17			.09	.12				T.		.07								.03	.11		T.				1	.12	.06	0.80	
Eustis	Kennebec				.36	.01				1.05	.02				.05										.09	T.	T.			1	.03	T.	1.61		
Farmfield	do				.12					.61															.02								0.73		
Farmington	do				.28					1.32				T.																		T.	1.62		
Gardiner	do				.22				.27	1.30				.12																	.02		1.95		
Greenville***	do	.01			.34					.76				.01				T.								.12			.20			.02	.24	1.50	
Hadton	St. John									.50																								1.20	
Howe Brook	Penobscot					.10				.20			.12																					1.65	
Lewiston	Androscooggin				.18				.08	1.92				.17											.01				.15	.20		.08	T.	2.41	
Madison	Kennebec				.05	.45				1.75															.06							.10		2.41	
Millinocket	Penobscot				T.	.24			.60	.12															.06		T.	T.				.09		1.11	
North Bridgton	Saco					.17				1.14				.19											.01							.01		1.52	
Oquossoc	Androscooggin					.20				1.50															.10								T.	1.50	
Orono	Penobscot	.50								.58															.50									1.58	
Patten	do				T.					1.00																								1.60	
Pemaquid	Coast				.45																													0.45	
Portland***	do		T.		.42	.05			.64	.47			.05	.38													T.					.01		2.02	
Presque Isle	St. John				.20					.44	.21					.22										.10	.21		T.		.61	.65	.07	2.74	
Rumford	Androscooggin				.14				.09	1.38					.03	.01																		1.10	
The Forks	Kennebec														.19											.01									1.52
Van Buren	St. John				.34					.26	.04					.03	T.																	2.19	
Winslow	Kennebec				.18					.88															.05							.01		1.12	
New Hampshire.																																			
Alstead Center	Connecticut				.64	.17				.28			T.	.24	.72	.01																		2.06	
Benton	do								.48			T.	.42	T.														T.				T.	T.	0.76	
Bethlehem	do				T.	.18				.53				T.	.10	T.										.06	.05		.02	T.		.67	.05	.04	1.16
Brookline	Merrimack				.10	1.00			.10			.02	1.10																					2.33	
Concord***	do				.01	.66	.06		.20				.36	.25																				1.54	
Durham	do								.45					.75																			.62		1.22
Franklin	do				T.	.48	.07			.32			.07	.57		.01																		1.53	
Grafton	do				T.	.27	.07			.35			T.	.65																				1.29	
Hanover	Connecticut				T.	.20	.05	T.	.20				.80	.51																				1.82	
Keene	do					.52	.17			.12			.11	.77																		.01		1.76	
Nashua	Merrimack				T.	.54	.56	T.		.18			T.	1.07																				2.43	
Newton	do				T.	.91			.50			T.	1.10	T.																				2.53	
Plymouth	do				T.	.19	T.			.39			T.	.16																				1.64	
Vermont.																																			
Bloomfield	Connecticut					.25					.10						.07	.04																0.89	
Burlington***	Champlain				.08	T.							.01	.06	.03		.07	.04																0.36	
Cavendish	Connecticut					.09				.09				.11	.80																			1.09	
Chelsea	do					.15								.05	.38																			0.65	
Comwall	Champlain				T.	.20							.40	.02	T.																			1.02	
Enosburg Falls	do					.30																													0.64
Hyde Park	do					.09																													0.52
Manchester	Hudson													.02	.03		T.																		
Northfield***	Champlain												.26	.13																					0.90
Somerset	Connecticut				.04	.07							.26	.13																				2.35	
St. Johnsbury	do					1.06				.06			*	1.14												.01	.05		.01	T.	T.		.19	.14	0.90
Vernon	do					.10				.02				.07	.04	.01																		0.50	
Vernon	do				.13	.59	.10		.05		.04		.82		.07	.04	.01																	1.73	
Wells	Champlain				T.	.22	.05						.12	.52	.05																			1.06	
Woodstock	Connecticut				.18		.15		.12				.70		.52	.05																		1.20	
Massachusetts.																																			
Amherst	Connecticut				.33	1.01	.05		.04	.17		.14	1.03	.65	T.																			3.56	
Ashland	Merrimack				*	1.32			.39	.02			*	1.05																				3.10	
Bakers Bridge II	do					.85	.38		.35				.15	1.10																				2.91	
Bedford	do					.79	.18		.15				.22	.90																				2.28	
Blue Hill	Coast				T.	1.01	.27		.45	.08			.28	.80			*	.01																2.95	
Boston***	do				T.	1.29	.13	T.	.16	.02		.02	.47	.39	T.																			2.78	
Brockton	Coast					.28	.30		.07	.55			.72	.38																				2.48	
Chestnut Hill	do				.17	1.18			.49			.12	.72	.04																				2.77	
Clinton	Merrimack				*	1.47			.40				.25	1.58																					



## Daily Temperatures for May, 1914.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean.	
Maine.																																	
Bar Harbor	Maximum	50	52	62	52	46	69	65	56	52	72	72	62	54	51	52	58	70	78	72	62	68	70	74	68	82	92	82	70	69	76	65.0	
	Minimum	32	35	40	42	40	41	38	42	40	42	46	40	37	40	39	30	39	43	46	43	43	50	46	54	55	55	70	55	36	42	38	43.0
Cornish	Maximum	52	65	74	67	59	72	76	64	71	81	75	54	50	63	66	73	70	81	81	80	75	77	75	77	91	93	82	70	75	84	72.2	
	Minimum	26	26	31	38	44	53	56	55	46	64	55	46	44	38	54	54	54	57	56	56	66	66	66	66	66	67	79	60	54	71	57.1	
Eastport	Maximum	38	49	55	46	44	53	56	55	46	64	55	46	44	38	54	54	54	57	56	56	66	66	66	66	66	67	79	60	54	71	57.1	
	Minimum	30	29	37	35	39	38	38	40	39	38	40	37	37	38	36	38	39	42	41	41	48	44	45	43	46	47	46	42	40	41	39.7	
Greenville	Maximum	38	54	63	63	48	57	64	64	50	69	59	54	50	54	50	55	64	76	78	81	72	64	66	66	72	85	87	74	68	65	75	64.0
	Minimum	23	30	34	40	37	38	30	33	41	40	42	28	36	37	36	30	28	33	33	42	41	53	56	45	42	53	61	84	70	70	73	68.5
Millinocket	Maximum	44	61	65	65	55	61	69	66	57	73	69	57	56	56	59	63	78	83	85	77	72	73	72	78	88	91	84	70	70	73	68.5	
	Minimum	28	33	41	35	33	42	29	32	45	42	50	28	35	40	35	26	27	30	45	48	44	53	56	45	42	53	57	63	36	44	43	40.6
Orono	Maximum	54	57	64	65	59	63	69	70	65	73	75	63	56	56	60	63	64	75	81	82	82	78	71	71	74	86	88	78	69	78	70.3	
	Minimum	27	31	42	37	41	43	32	41	45	40	49	34	38	40	40	32	34	46	46	42	57	54	44	48	54	61	59	40	46	38	42.5	
Portland	Maximum	46	62	62	51	47	65	62	50	65	69	71	48	43	52	60	64	59	70	82	78	57	60	73	73	66	92	86	80	60	64	81	64.5
	Minimum	31	34	44	41	43	45	44	43	46	48	48	48	48	48	48	48	48	48	48	48	50	48	48	48	50	57	67	60	49	46	53	46.3
Presque Isle	Maximum	40	53	60	55	50	58	62	49	60	67	68	58	62	53	54	61	63	78	83	85	78	75	66	64	78	90	85	77	70	64	75	66.6
	Minimum	23	30	35	36	34	26	29	45	42	36	45	42	36	40	34	27	25	28	32	42	46	48	55	55	43	60	65	56	34	43	40	39.8
Rumford	Maximum	45	59	67	63	48	62	67	65	58	74	63	52	46	65	65	68	66	78	82	81	73	70	68	70	76	88	89	76	69	70	79	67.3
	Minimum	32	37	36	49	40	45	36	41	49	46	46	32	40	41	38	32	40	40	47	50	48	50	48	47	40	56	70	55	46	42	46	44.1
Van Buren	Maximum	36	48	60	55	53	57	69	67	60	56	48	56	59	54	48	49	62	72	82	83	76	72	69	66	74	85	75	66	60	71	62.8	
	Minimum	22	31	36	36	34	40	27	33	23	35	23	27	37	34	27	22	27	52	46	42	55	51	43	46	54	56	33	31	45	43	37.4	
New Hampshire.																																	
Alstead Center	Maximum	45	60	68	68	56	62	66	66	70	72	70	50	38	61	59	64	67	74	77	80	75	80	70	85	86	88	87	88	78	73	76	69.9
	Minimum	27	35	40	46	45	49	45	47	47	46	48	42	37	37	36	42	44	53	56	55	50	52	47	53	54	59	54	38	34	41	44.3	
Bethlehem	Maximum	41	55	65	70	60	61	63	68	58	71	61	50	42	52	59	66	74	73	76	74	78	68	66	72	81	85	77	70	72	76	66.0	
	Minimum	26	26	31	40	45	43	38	46	38	47	39	35	39	39	32	40	41	50	49	49	48	46	39	45	54	66	57	41	46	44	42.5	
Concord	Maximum	46	61	71	70	50	67	71	63	68	78	71	55	44	59	60	67	67	78	77	82	73	72	74	72	71	91	93	79	68	79	81	69.6
	Minimum	31	36	36	41	46	47	37	45	49	43	51	36	34	38	39	32	37	39	44	45	46	54	53	46	43	60	61	47	48	43	46	44.3
Franklin	Maximum	47	62	73	73	55	68	76	72	71	79	72	58	44	62	61	69	73	79	78	86	76	75	77	75	75	92	95	82	74	80	84	72.4
	Minimum	30	30	34	39	46	47	34	41	49	49	48	41	33	37	31	30	36	36	43	43	46	46	54	43	38	55	65	60	45	41	43	42.3
Hannover	Maximum	46	62	71	74	58	67	68	74	70	76	69	53	41	63	60	67	70	79	80	80	77	83	70	72	73	89	91	78	76	78	80	70.9
	Minimum	29	30	31	37	46	46	33	38	49	36	42	41	32	39	42	30	36	36	44	42	45	42	50	42	41	58	62	59	41	46	44	41.7
Nashua	Maximum	50	67	75	74	67	73	73	65	75	81	77	72	44	65	67	71	72	80	82	83	80	82	83	75	78	77	94	92	80	80	86	75.1
	Minimum	31	31	36	40	48	47	38	46	47	43	52	43	36	39	39	32	38	39	45	48	48	57	55	46	48	60	76	59	43	48	48	45.5
Plymouth	Maximum	45	60	71	69	55	67	70	70	66	77	67	57	45	64	59	65	71	78	79	72	73	69	72	72	88	88	76	74	76	81	69.5	
	Minimum	32	35	33	35	47	46	30	36	50	36	35	45	34	39	33	28	35	33	40	38	42	51	55	45	35	53	63	63	41	41	45	40.8
Vermont.																																	
Burlington	Maximum	45	59	67	69	64	63	61	68	64	75	75	56	51	50	61	56	62	70	76	79	80	79	82	61	71	70	85	90	76	74	78	68.1
	Minimum	32	32	36	44	49	43	40	42	46	46	43	43	40	41	40	41	46	51	55	50	51	57	46	39	53	68	66	52	45	51	48	46.3
Enosburg Falls	Maximum	46	61	68	75	63	65	66	75	61	74	62	55	56	65	60	62	70	78	78	79	78	86	72	69	73	86	90	79	78	74	80	70.5
	Minimum	28	26	28	37	49	45	32	35	35	45	34	42	41	34	34	39	40	48	42	47	46	47	33	37	68	60	69	37	64	43	41.5	
Northfield	Maximum	42	55	66	68	57	62	64	70	61	74	59	49	41	61	54	62	67	76	78	78	78	81	63	70	70	85	87	72	72	78	67.0	
	Minimum	26	24	31	36	47	38	32	33	41	34	40	35	34	39	33	30	42	35	43	44	46	48	36	41	61	62	43	38	47	42	39.4	
St. Johnsbury	Maximum	48	59	69	71	66	64	71	75	73	74	71	56	55	61	59	63	69	78	78	79	79	81	79	71	73	88	89	86	74	76	81	71.5
	Minimum	30	29	29	37	47	46	31	36	50	37	45	39	38	39	34	29	42	35	42	41	44	52	42	37	63	69	58	40	48	42	41.5	
Wells	Maximum	42	55	65	68	64	60	62	68	66	73	65	52	50	59	54	62	68	72	78	78	78	70	80	70	74	87	88	78	80	76	77	68.4
	Minimum	28	29	34	40	49	42	39	42	49	45	46	40	34	39	36	36	42	42	51	50	54	52	56	37	56	64	65	60	60	54	47	45.7
Massachusetts.																																	
Amherst	Maximum	55	65	75	70	55	70	74	66	74	74	72	57	44	66	64	69	72	78	82	84	7											





Scale of Shades.

- 0 to 2 inches.
- 2 to 4 inches.
- 4 to 6 inches.
- 6 to 8 inches.
- Over 8 inches.



Day of month.

‡‡ Post-office addresses of these stations are as follows: Bikers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.

[illegible]



U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU

CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

JUNE, 1914

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BY

JOHN W. SMITH

DISTRICT FORECASTER AND SECTION DIRECTOR

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
JULY 24, 1914



Departure of the Mean Temperature from the Normal, June, 1914.





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, District Forecaster and Section Director.

VOL. XXVI.

BOSTON, MASS., JUNE, 1914.

No. 6.

## GENERAL SUMMARY.

The month was somewhat cooler than usual, with less than the average amount of precipitation. There were no very high day temperatures, and the nights were generally cool. Frost occurred in northern Maine near the close of the month, causing some injury to potatoes and other tender vegetation. The rainfall was unevenly distributed over the section and through the month. A fairly heavy rainfall occurred in nearly all parts of the section on the 4th, and again from the 28th to the 30th, otherwise the amounts were scattered and generally small. The rainfall was greatest in the northern portion of the section, with amounts exceeding 4 inches in parts of Maine and Vermont, and least in Massachusetts and Rhode Island, where a considerable area received less than one inch. The growth of vegetation is retarded by the comparatively low temperature, and also in some sections by the absence of rain, so that it remained about two weeks later than usual through the month.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 15 stations reporting, 29.95 inches, which was normal for the month. The highest monthly mean was 29.97 inches, at Fall River, Mass., Block Island, R. I., and New Haven, Conn. The next monthly mean was 29.90 inches, at Eastport, Me. The highest recorded was 30.37 inches, at Eastport, Me., on the 9th. The lowest recorded was 29.50 inches, at Eastport, Me., on the 10th. The monthly range for the section was 0.87 of an inch.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 15 stations, was 62.7°, which was 0.8° below the mean for the month last year. The mean departure from the normal for 64 stations having ten or more years' record, was -1.7°. The greatest deficiency was in Vermont and the least in Massachusetts. In comparison with the average temperature of the month of other years since 1888, the month was warmer in 20 and colder in 6 years. The warmest June during this period was in 1905, with an average temperature of 67.2°, and the coldest in 1903, with an average temperature of 59.5°. The extremes in temperature were not unusual. The average temperature for several states of the section, was as follows: Maine, 59.8°; New Hampshire, 62.0°; Vermont, 61.2°; Massachusetts, 64.6°; Rhode Island, 63.0°; Connecticut, 64.5°. The average of all the states was below the normal, Maine being 1.7° below; New Hampshire, 2.0°; Vermont, 2.8°; Massachusetts, 0.5°; Rhode Island, 1.7°; and Connecticut, 1.5°. The highest monthly mean was 68.6°, at Worcester, Mass., the lowest 54.6°, at Van Buren, Me.

The highest temperature recorded was 97°, at Norfolk, Mass., on the 25th. The lowest recorded was 24°, at Patten, Me., on the 4th. The range for the section was 73°. The widest local monthly range was 67°, at Patten, Me.; the least, 4°, at Block Island, R. I. The greatest daily range was 50°, at Plymouth, N. H., on the 7th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 15 stations reporting, 70 per cent, which was 7 per cent below the normal for the month. The highest monthly average was 81 per cent, at Block Island, R. I.; the lowest, 62 per cent, at Portland, Me.

## PRECIPITATION.

The average for the section, 86 stations reporting, was 2.32 inches, which was 1.04 inches above the average for the month, last year. Since 1888 the average precipitation in June has been greater in 21 years, and less in 5 years, than that of the month this year. The greatest June rainfall during this period was 6.70 inches, in 1903; the least, 0.93 of an inch, in 1912. The departure from the normal for 68 stations having ten or more years' record, was 0.97 of an inch. The deficiency was least in Maine and Vermont, and greatest in Massachusetts and Rhode Island. The rainfall was above the normal at only a few scattered stations. The average precipitation for the several states was as follows: Maine, 3.21 inches; New Hampshire, 2.25; Vermont, 2.93; Massachusetts, 1.67; Rhode Island, 1.04; Connecticut, 2.36. The average was below the normal in all the states, the deficiency in Maine being 0.42 of an inch; New Hampshire, 1.10; Vermont, 0.60; Massachusetts, 1.28; Rhode Island, 1.60; Connecticut, 0.84. The greatest monthly amount was 5.15 inches, at Van Buren, Me.; the least, 0.55 of an inch, at Provincetown, Mass. The greatest amount in 24 hours was 2.24 inches, at Van Buren, Me., on the 5th. The average number of days with .01 inch or more of precipitation was 8, 1 day less than the usual number for the month, as determined from the records of the past 27 years.

## WIND.

The prevailing direction of the wind was from the northwest. The normal direction for the month is from the northeast, although the winds at this season are more variable than in any other part of the year. The average monthly wind movement for the section, 15 stations reporting, was 7,086 miles. The average hourly velocity was 9.8 miles, 0.2 above the normal for the month. The greatest monthly wind movement was 11,002 miles, at Blue Hill Observatory, Hyde Park, Mass. The least was 4,200 miles, at Concord, N. H. The highest velocity recorded was 52 miles per hour from the northwest, at Providence, R. I., on the 16th. This is somewhat above the usual maximum velocity for June.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 14; partly cloudy, 9; cloudy, 7, which compares with the normal for June of 12 clear, 10 partly cloudy, and 8 cloudy days. The average per cent of possible sunshine, as determined from the records of 11 stations, was 60, which was 1 per cent below the normal for the month. The greatest per cent of the possible was 67, at Providence, R. I.; the least, 50, at New Haven, Conn.

## DATES OF MISCELLANEOUS PHENOMENA.

*Halos, Solar.*—Northfield, Vt., 7, 9, 22, 24; Somerset, Mass., 3, 7, 14.

*Auroras.*—Eastport, Me., 26; Enosburg Falls, Vt., 27; Northfield, Vt., 26.

*Hail.*—Patten, Me., 4; Burlington, Vt., 15; Northfield, Vt., 24; Blue Hill and Williamstown, Mass., 16; Canton, Conn., 1.

*Killing frosts.*—Ashland, Me., 2, 3, 4, 28; Cornish, Me., 6; Houlton and Millinocket, Me., 4, 9, 28; North Bridgton, Me., 7; Patten and Presque Isle, Me., 4; Van Buren, Me., 3, 28.

*Thunderstorms* (dates and number of observers reporting on each): Maine—1st, 2; 10th, 1; 12th, 1; 13th, 2; 15th, 6. New Hampshire—1st, 1; 15th, 9; 16th, 2; 24th, 2; 25th, 2; 28th, 4; 29th, 7. Vermont—15th, 7; 16th, 1; 24th, 5; 25th, 3; 28th, 4; 29th, 1. Massachusetts—1st, 14; 8th, 1; 15th, 9; 9; 16th, 1; 27th, 2; 28th, 3; 29th, 6. Rhode Island—1st, 1; 16th, 1. Connecticut—1st, 6; 7th, 1; 8th, 3; 15th, 8; 16th, 5; 19th, 1; 20th, 1; 23d, 1; 24th, 5; 25th, 1; 28th, 2; 29th, 5.



## Climatological Data for June, 1914.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.					No. of days—			Observer.			
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.		Cloudy.	Prevailing direction of wind.	
Maine.																					
Bar Harbor	Hancock	20	28																	William Miller.	
Cornish	York	778	59	63.0	-2.2	93	24	35	6	44	3.81	+0.18	1.38	0	10	14	5	9	w.	T. H. West.	
Eastport	Washington	53	42	55.4	+1.0	86	11	39	9	32	3.23	-0.01	1.65	0	11	8	15	7	s.	U. S. Weather Bureau.	
Fairfield	Somerset	90	29	61.0	-2.4	87	10	40	3	41	1.38	-1.40	0.70	0	3	13	4	13	nw.	E. F. Parker.	
Farmington	Franklin	450	17	61.0	-1.5	92	24	37	2	45	2.67	-0.96	0.75	0	10	12	9	9	nw.	State Normal School.	
Gardiner	Kennebec	163	22	60.1	-5.1	88	24	40	9	41	4.23	+1.06	0.78	0	12	20	4	6	sw.	Samuel D. Soule.	
Greenville	Piscataquis	1,140	10	56.3		86	24	32	4	42	3.34	-0.74	0.78	0	14				w.	U. S. Weather Bureau.	
Houlton	Aroostook	362	12	58.1		88	25	28	4	39	4.05	+0.90	1.62	0	8	16	7	7	w.	Bangor & Aroostook R.	
Lewiston	Androscoggin	185	40	62.0	-2.4	89	24	44	7	40	2.92	-0.64	0.76	0	9	14	9	7	nw.	Union Water Power Co.	
Madison	Somerset	257	11	59.6		94	25	40	4	39	3.23	-1.07	0.96	0	10	22	1	7	nw.	William Jardine.	
Millinocket	Penobscot	386	11	58.9		90	24	28	4	43	3.56	+0.27	1.28	0	12	17	3	10	w.	Great Northern Paper Co.	
North Bridgton	Cumberland	450	21	62.9	-1.7	93	24	39	7	45	2.74	-1.01	1.12	0	8	9	15	6	nw.	G. E. Chadbourne.	
Orono	Penobscot	129	45	60.8	-1.5	88	25	34	9	38	3.92	+0.56	1.20	0	9	20	3	6	sw.	Department of Physics	
Patten	do.	550	12	56.2 <sup>a</sup>		91 <sup>a</sup>	24	24 <sup>a</sup>	4	43 <sup>a</sup>	4.08		1.00	0	5	13 <sup>a</sup>	1 <sup>a</sup>	12 <sup>a</sup>	se.	Bangor & Aroostook R.	
Pemaquid	Lincoln																			Margaret Adams.	
Portland	Cumberland	99	43	61.8	-0.8	91	10	43	6	42	2.34	-1.02	0.74	0	7	11	10	9	nw.	U. S. Weather Bureau.	
Presque Isle	Aroostook																			E. M. Libby.	
Rumford	Oxford	505	21	60.8	-2.8	89	10	41	2	39	2.16	-1.26	0.87	0	10	24	2	4	nw.	Charles A. Mixer.	
Van Buren	Aroostook	510	9	54.6		87	24	26	4	49	5.15		2.24	0.5	13	15	7	8	sw.	J. M. Thomas.	
Winslow	Kennebec	90	19	62.9	+0.2	90	24	41	3	41	2.07	-1.14	0.89	0	7	18	4	8	w.	Hollingsworth & Whit	
New Hampshire.																					
Alstead Center	Cheshire	1,120	10	61.4		88	24	37	2	35	2.28		1.12	0	7	23	2	5	nw.	Frank Dewing.	
Benton	Grafton																			State Sanatorium.	
Bethlehem	do.	1,470	22	58.4	-5.1	86	24	36	18	38	1.94		0.70	0	8	14	7	9	nw.	Benjamin Tucker.	
Concord	Merrimac	350	54	62.8	-1.6	92	24	40	7	44	2.39	-0.95	1.02	0	8	14	7	9	nw.	U. S. Weather Bureau.	
Durham	Stafford	88	19	63.6	-0.7	95	10	37	3	48	1.42	-1.66	0.52	0	7	18	3	9	nw.	Agr. Exp. Station.	
Franklin	Merrimac	440	15	62.7	-0.6	93	24	36	3	48	3.08	-0.96	1.69	0	7	15	8	7	nw.	Dr. C. P. Webster.	
Grafton	Grafton	863	28																	P. R. Kimball.	
Hanover	do.	603	80	62.2	-2.8	93	24	37	7	48	1.90	-1.50	1.13	0	12	15	5	10	nw.	Dartmouth College.	
Keenes	Cheshire	506	29	62.5	-2.4	92	24	33	6	47	2.49	-1.07	0.92	0	8	17	5	8	nw.	Samuel Wadsworth.	
Nashua	Hillsboro	125	29	66.9	+0.6	96	24	42	6	44	1.42	-1.28	0.45	0	8	9	11	10	nw.	C. B. Stevens.	
Newton	Rockingham																			W. C. Gale.	
Plymouth	Grafton	500	26	61.3	-2.9	92	24	34	7	50	3.16	-0.27	1.72	0	6	15	1	14	nw.	Hattie G. Trow.	
Vermont.																					
Bloomfield	Essex																			Lyman Falls Power Co.	
Burlington	Chittenden	404	6	62.0	-1.8	89	24	31	6	45	3.07		0.58	0	14	17	6	7	s.	U. S. Weather Bureau.	
Cavendish	Windsor	910	11	63.0		94	26	36	3	49	2.70		1.18	0	9	7	15	6	9	s.	Colonial Power Co.
Chelsea	Orange	840	19	60.0	-1.3	91	24	32	6	49	1.96	-0.43	0.98	0	8	18	2	10	n.	W. F. Dewey.	
Cornwall	Addison	517	20	63.5	-3.6	91	24	38	6	38	2.35	-0.98	0.92	0	10	14	12	4	s.	C. H. Lane.	
Enosburg Falls	Franklin	601	22	60.9	-4.3	90	24	35	6	45	3.22	-1.33	0.92	0	14	13	11	6	n.	L. H. Pomeroy.	
Hyde Park	Lamoille	576	2	60.8 <sup>a</sup>		92 <sup>a</sup>	24	34 <sup>a</sup>	7	47	4.36		1.48	0	13	9 <sup>a</sup>	13 <sup>a</sup>	7 <sup>a</sup>	w.	A. V. Wiswell.	
Manchester	Bennington	980	15																	N. M. Canfield.	
Northfield	Washington	876	27	58.2	-4.5	88	24	35	7	47	2.85	-0.40	0.90	0	11	9	13	8	s.	U. S. Weather Bureau.	
Somerset	Windham	2,096	2	60.5		84	24	43	6	31	3.36		1.54	0	10	5	20	5	w.	Power Construction Co.	
St. Johnsbury	Caledonia	711	21	61.6	-2.4	91	24	37	6	41	3.09	+0.06	0.91	0	11	14	10	6	n.	Fairbanks Museum.	
Wells	Rutland	750	21	63.2	-2.5	90	24	38	6	35	2.55	-1.06	1.31	0	8	14	9	7	s.	E. R. Fember.	
Woodstock	Windsor	700	22	62.8	-2.2	90	23	38	6	44	2.38	-0.72	1.45	0	5	14	3	13		John S. Eaton.	
Massachusetts.																					
Amherst	Hampshire	222	25	64.5	-1.7	91	24	39	6	40	2.32	-1.42	0.69	0	8	16	7	7	nw.	Agr. Exp. Station.	
Blue Hill	Norfolk	640	30	63.8	+0.5	91	25	45	6	37	1.75	-1.07	0.53	0	8	11	11	8	sw.	Blue Hill Observatory.	
Boston	Suffolk	124	44	67.3	+1.5	94	25	49	9	36	1.40	-1.63	0.67	0	7	8	16	6	sw.	U. S. Weather Bureau.	
Chestnut Hill	do.	124	35	66.6	-0.3	93	24	41	2	38	1.73	-1.54	0.56	0	8	27	0	3		Met. Water Board.	
Clinton	Worcester	370	18	64.5		89	25	45	5	32	2.00		1.02	0	5					Do.	
Concord	Middlesex	139	24	63.6	-0.8	92	25	42	6	38	1.98	-1.23	0.90	0	7	6	16	8	s.	Fred A. Tower.	
Fall River	Bristol	200	48	65.4	-0.4	89	25	47	9	25	0.70	-1.56	0.27	0	7	7	22	1	sw.	C. V. S. Remington.	
Fitchburg	Worcester	550	31	65.2	-1.4	93	25	44	6	37	1.51	-1.32	0.58	0	6	17	4	9	w.	Dr. A. P. Mason.	
Framingham	Middlesex	160	34	66.0	-1.1	93	24	44	3	40	2.02	-0.72	0.96	0	7					Met. Water Board.	
Hyannis	Barnstable	31	23	63.3	-2.6	85	11	48	5	27	1.52	-0.79	0.54	0	6	18	9	3	nw.	C. F. Sleeper.	
Lawrence	Essex	51	30	65.2	+1.6	93	24	46	3	42	1.28	-1.92	0.44	0	8	10	17	3	nw.	Essex Company.	
Lowell	Middlesex	100	29	66.8	0.0	91	25	47	3	34	1.65	-1.64	0.69	0	5					Props. Locks & Canal.	
Middleboro	Plymouth	53	28	63.0	-1.0	92	25	39	6	38	0.91	-1.73	0.35	0	7	4	16	10	sw.	A. R. Gurney.	
Nantucket	Nantucket	47	28	60.7	-0.6	82	11	48	9	27	2.58	+0.17	1.18	0	8	9	16	5	sw.	U. S. Weather Bureau.	
New Bedford	Bristol	88	102																	City Engineer.	
Norfolk	Norfolk	244	11	62.4		97	25	36	6	42	0.90		0.38	0	6	18	8	4	w.	Ruby H. Martyn.	
Plymouth	Plymouth																			L. B. Knapp.	
Provincetown	Barnstable	40	27	62.7	-1.1	89	11	47	9	31	0.55	-2.11	0.20	0	4	24	0	6	sw.	Gideon Bowley.	
Rockport	Essex	25	12	61.2		85	9	45	6	38	1.68		0.42	0	8	11	11	8	sw.	C. F. P. Bearse.	
Rutland	Worcester	1,160	12	62.2		87	24	42	19	32	2.11		0.56	0	8	15	9	6	sw.	State Sanatorium.	
Springfield	Hampden	199	1	67.0		94	24	45	6	39	2.55		0.72	0	8	9	11	10	nw.	U. S. Army.	
Turners Falls	Franklin	200	23	64.9	-1.3	90	24	43	6	36	1.74	-1.57	0.54	0	6	13	11	6		Turners Falls Co.	
Westboro	Worcester	298	40	68.4	+0.8	94	12	43	3	42	2.23	-0.66	1.10	0	5					G. S. Newcomb.	
Williamstown	Berkshire	711	33	63.6	-2.0	87	24	42	6	37	2.21	-1.14	0.93	0	10	15	6	9	n.	Williams College.	
Worcester	Worcester	518	22	68.6	+1.7	91	24	51	9	28	1.80	-1.16	0.68	0	8	16	8	6	sw.	G. W. Swan.	
Rhode Island.																					
Block Island	Newport	26	34																		



## Daily Precipitation for June, 1914.

Stations.	Watershed.	Day of month.																															Total.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
<i>Maine.</i>																																			
Island Harbor	St. John				1.00	.60					.13		T	.85	T		.63	.31			.35	.03					.10			.31	.18		4.49		
Camden Bridge	Coast																																		
Camden	Kennebec	.10			.80	.36										.07	.55				.55								.27	.17		2.87			
Camden	Saco	.05			1.19			T	.04							1.38	.43			T	.19					.01			.07	.16	.05		3.81		
Camden	Penobscot				* 1.73										.40						.20														
Camden	Coast	.01		T	1.45	.20		T	.09		.06		.16	.02		T	.33				.42							.05		.14			3.23		
Camden	Kennebec	.45			.64	.19	T			T			T	.01		T	.07	.05			.40				.09	.13			T	.18	.35		2.84		
Camden	do					.70											.28																1.38		
Camden	do	.12			.75	.16								.02		.12	.28				.01			T		.18			T	.35	.08		2.67		
Camden	do	.20			.78	.25			T		.11					.54	.65				T	.40					.15	.26		.02	.63	.30		4.23	
Camden	do			.02	.78	.06			.04			T	.12	T		.28	.38	.02			.54						.16	.10		.20	.30	.34		3.34	
Camden	St. John				.07	1.18										.16	.25				.35									.20	.30	.34		4.05	
Camden	Penobscot		.05		.20	.12								.12			.30	.18			.16				.09	.13				.26	.30		1.73		
Camden	do				.70												.28																		
Camden	Androskoggin	.06		.01	.76			T	T							.45	.22				.45									.09	.64	.21		2.92	
Camden	Kennebec			.04	.96	.27										.49	.13				.63									.30	.12	.20		3.23	
Camden	Penobscot			.01	1.28	T			.12			T		.11	.06		.54	.28			.72	.05								.14	.15	.10		3.56	
Camden	Saco				1.12	.01										.70					.11									.03	.35	.08		2.74	
Camden	Androskoggin				1.30																.75								T	.50		.25		2.60	
Camden	Penobscot	.11			.31	1.20				.14		.01					.96				.55										.34	.30		3.92	
Camden	do		T		1.00		T										1.00				.80										T	.64		4.08	
Camden	Coast																																		
Camden	do	.01		T	.74	T		T	T							.47	T				.39									.02	.54	.17		2.34	
Camden	St. John	.13			.22	1.31					.10		.40	T		T	.60	.75			T	.38	.05					.15				.61		4.80	
Camden	Androskoggin				.87						.02		T			.01	.06				T	.22						.24	.27		.19	.13	.15		2.16
Camden	Kennebec																																		
Camden	St. John	.14		.09	.16	2.24					.25	.18				.54	.59	.26			.20				T	T	.20				.18	.12		5.15	
Camden	Kennebec				.89	.07											.43				.38						.10				*	.20		2.07	
<i>New Hampshire.</i>																																			
Camden	Connecticut	T		T	1.12	.03			.04							T	.12			.25	T	.50					.07			T	.40	T		2.28	
Camden	do				.70			T								.25	.09		.25											*	.37	.23		1.94	
Camden	do	.11			1.09	.07		.02		T						.03	.49				.42					.05				.16	.17	.08		3.27	
Camden	Merrimack	.12		.25	.35									.04		.10	T				.15									.32	.70			1.83	
Camden	do	.04		.04	.88			T	T							.04	T				.01	.36								.32	.50			2.39	
Camden	do	.02			.52											.01	.02				.29									.21	.35			1.42	
Camden	do	T		T	1.69	.03			.03		T					.30					.03	.36								T	.64			3.68	
Camden	Connecticut	.05		.03	1.13	.01		T	.02						T	.17	.09	.02			T	.03								.02	.31	.02		1.90	
Camden	do	T		T	.92				.01							.50	.05				.04	.45								.24	.28	T		2.49	
Camden	Merrimack			T	.45				T						.01	.03	.25	.02			.10									.42	.14			1.42	
Camden	do	T		T	.44			T	T							.01	.05				T	.25								.56	T	.07		1.38	
Camden	do			T	1.72	.03										.41	.44				T										.54	.02		3.16	
<i>Vermont.</i>																																			
Camden	Connecticut	.20		.05	.41	.09			.01							.13	.24	.31			.58									.05	.20	.39		3.07	
Camden	Champlain	T		.02	.50			T	T							.14	.22			1.32					T	.26				.38	.36	.10		3.30	
Camden	Connecticut				1.18	.07			.06								.24	T			.17									.38	.36	.10		2.70	
Camden	do				.98	.12			T							.04	.10				.55									.15	.20			1.96	
Camden	Champlain	.01			.92			T	T					.02		.05	.15				.75					.12				.05	.20			2.35	
Camden	do	.26		T	.36	.03		.04	.09					.01		.01	.30	.05			.92									.16	.38	.40		3.22	
Camden	do	.27			.52	.01		.03	.08							.01	.25	.06			.63									.31	.12	.59		4.36	
Camden	Hudson																																		
Camden	Champlain	.03	T	.03	.88			T	T					.01		.12	.19				.56	T									.25	.32	.10		2.85
Camden	Connecticut	.19			* 1.57											.18	.01				.37									*	.83	.21		3.36	
Camden	do	.07		T	.91	.12		T	T							.01	.02	.01			.64											.17	.23		3.09
Camden	do			.31	.51											.34					.32									.43	.42			2.33	
Camden	Champlain				1.31	.05		T																											



## Daily Temperatures for June, 1914.

Stations.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean
Maine.																																	
Bar Harbor	Maximum	83	75	77	57	67	71	82	78	60	89	89	91	81	74	77	65	75	82	79	68	79	84	87	93	91	81	83	64	60	70	77	
	Minimum	57	41	39	47	46	35	38	55	49	49	53	55	53	48	43	52	50	45	45	46	45	47	50	55	63	57	48	54	52	54	49	
Cornish	Maximum	73	64	59	49	52	67	78	59	54	58	86	70	62	64	61	50	70	68	59	61	73	71	76	58	81	72	72	61	51	54	64	
	Minimum	48	43	41	40	40	45	46	43	39	45	58	48	47	48	45	45	47	47	45	47	48	47	50	47	49	55	52	49	47	47	46	
Eastport	Maximum	64	54	59	46	52	64	75	68	60	83	78	82	70	67	67	56	68	78	72	60	70	77	77	86	78	70	65	62	53	56	67	
	Minimum	52	37	34	32	39	43	48	55	36	41	58	55	45	42	35	46	45	48	47	42	44	51	44	51	64	48	48	36	49	48	45	
Greenville	Maximum	79	68	11	61	63	69	80	73	68	89	88	83	75	68	69	62	71	80	73	67	71	81	82	90	86	80	70	70	57	54	72	
	Minimum	52	37	34	32	39	43	48	55	36	41	58	55	45	42	35	46	45	48	47	42	44	51	44	51	64	48	48	36	49	48	45	
Millinocket.	Maximum	79	68	11	61	63	69	80	73	68	89	88	83	75	68	69	62	71	80	73	67	71	81	82	90	86	80	70	70	57	54	72	
	Minimum	38	41	36	28	39	46	42	54	31	46	56	52	46	47	36	47	51	45	44	42	47	45	54	64	48	48	36	49	48	45		
Orono	Maximum	79	73	66	67	61	70	63	78	72	75	84	86	85	74	71	68	71	76	70	72	72	82	83	87	88	88	75	75	67	60	74	
	Minimum	55	45	37	40	42	42	38	45	34	46	61	55	49	45	41	47	48	45	47	47	45	47	47	54	60	52	48	45	51	51	44	
Portland	Maximum	70	65	71	55	62	70	72	68	52	91	87	89	72	68	65	63	72	67	66	64	78	78	74	82	91	78	79	63	56	56	70	
	Minimum	55	50	48	48	47	43	47	49	47	49	64	63	57	52	50	51	50	52	51	49	50	55	58	56	62	60	58	54	51	54	52	
	Maximum	70	62	52	58	47	65	61	69	20	82	90	75	67	64	67	53	70	80	78	73	73	73	75	83	88	86	70	67	57	55	69	
	Minimum	46	38	33	25	32	44	41	48	30	47	48	48	40	40	35	45	45	53	45	45	43	51	40	56	56	60	42	48	31	45	42	
Presque Isle.	Maximum	70	60	66	51	58	68	80	74	61	89	84	88	74	68	74	62	72	80	75	63	74	81	83	89	84	72	72	59	57	61	71	
	Minimum	50	41	44	46	49	48	42	60	51	50	57	58	56	48	43	52	50	45	46	46	42	48	50	55	66	56	47	46	54	55	50	
Rumford	Maximum	67	57	67	54	48	67	66	66	66	72	76	69	63	60	66	56	65	65	76	77	64	72	76	78	87	74	67	65	58	59	66	
	Minimum	67	37	30	26	45	38	45	44	31	48	51	42	39	38	35	40	49	52	54	41	45	50	46	38	57	42	51	30	45	49	42	
New Hampshire.																																	
Alstead Center	Maximum	75	62	68	57	61	68	80	74	65	85	82	83	73	69	68	60	72	77	77	64	72	81	80	88	85	76	79	74	63	62	72	
	Minimum	46	37	45	42	37	42	60	64	49	50	60	56	51	49	47	45	44	47	42	40	44	52	55	63	68	56	55	50	53	54	50	
	Maximum	70	57	61	53	56	65	77	77	66	83	80	83	70	65	73	56	69	79	74	61	72	78	80	87	80	71	72	59	61	61	69	
	Minimum	48	39	38	44	42	34	40	60	48	50	60	59	45	43	40	41	46	47	47	37	43	46	49	60	63	43	49	45	49	54	47	
Bethlehem	Maximum	79	66	71	58	64	70	84	75	59	90	86	90	74	70	72	61	73	80	75	65	76	83	83	92	91	80	82	65	61	68	74	
	Minimum	57	45	41	51	49	45	40	54	50	51	54	54	57	48	47	48	51	44	49	45	48	41	50	58	66	62	56	52	54	54	51	
Concord	Maximum	81	68	72	58	64	72	86	79	61	90	87	90	78	73	76	62	75	83	77	67	79	85	87	93	92	83	82	70	61	71	76	
	Minimum	55	40	36	49	49	38	38	60	50	48	54	52	44	42	43	43	46	42	45	44	41	48	49	56	67	55	50	53	52	56	48	
Franklin	Maximum	75	65	67	55	63	71	85	81	65	88	82	88	77	72	76	61	76	82	78	65	77	85	86	93	92	83	82	70	61	71	76	
	Minimum	52	42	40	49	47	37	59	52	55	53	52	47	46	43	46	46	44	49	40	41	47	48	51	58	62	72	55	46	52	53	49	
Hanover	Maximum	61	46	43	53	51	42	42	63	49	50	56	57	56	56	52	50	48	48	49	49	48	55	51	63	73	63	62	55	54	57	53	
	Minimum	74	64	68	57	62	70	84	76	65	88	84	87	77	74	59	76	83	75	64	79	87	84	92	88	80	72	65	59	67	74	71	
Nashua	Maximum	74	64	68	57	62	70	84	76	65	88	84	87	77	74	59	76	83	75	64	79	87	84	92	88	80	72	65	59	67	74	71	
	Minimum	54	39	36	48	49	45	34	60	51	48	53	48	50	48	41	49	50	41	45	42	42	45	46	53	62	56	43	53	53	57	48	
Vermont.																																	
Burlington	Maximum	66	59	60	58	62	68	78	76	73	85	83	81	73	66	74	57	75	81	79	63	75	78	81	90	82	73	71	61	68	61	71	
	Minimum	49	41	50	49	47	41	44	63	60	62	57	60	54	46	46	48	49	57	72	62	62	62	62	66	67	63	54	51	56	54	52	
	Maximum	68	59	60	57	62	70	80	80	76	83	82	80	73	69	73	60	75	84	81	72	75	80	81	90	80	75	70	62	68	67	73	
	Minimum	45	36	45	48	45	35	35	40	60	60	57	56	48	41	46	44	46	48	60	40	40	43	46	63	67	44	66	45	55	55	48	
Enosburg Falls	Maximum	67	60	61	52	58	67	82	78	64	83	80	81	71	67	72	55	71	78	76	59	74	79	80	88	81	71	70	57	60	62	70	
	Minimum	42	39	43	47	39	26	35	58	52	54	53	51	46	41	38	44	46	44	45	40	40	43	46	59	62	45	43	48	53	53	46	
Northfield	Maximum	78	66	65	60	61	70	78	82	77	86	83	86	73	78	77	67	74	83	80	75	75	83	84	91	38	86	75	71	62	64	75	
	Minimum	48	41	41	47	47	37	37	59	52	54	51	55	43	45	39	47	49	42	54	41	51	45	56	58	51	48	43	46	53	56	47	
St. Johnsbury	Maximum	71	64	70	58	60	68	78	80	72	83	84	89	80	72	74	66	74	82	78	66	75	85	88	90	88	82	86	68	68	68	75	
	Minimum	54	43	48	52	45	38	48	62	56	54	56	56	58	46	46	40	50	50	40	40	40	40	50	55	65	66	52	56	54	52	50	
Massachusetts.																																	
Amherst	Maximum	29	70	73	61	69	77	83	81	67	87	87	87	80	78	71	67	79	78	71	67	77	83	83	91	89	84	71	61	69	66	76	
	Minimum	57	45	47	55	46	39	43	59	54	53	57	58	55	53	53	49	45	47	53	45	49	55	53									







Daily Precipitation for June, 1914—Continued from page 45.

		Day of month.																															Total.	
Stations.	Watershed.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
<i>Rhode Island.</i>																																		
Block Island ***	Coast	T.			1.11	.01										T.	.24			T.	*	.10		.06					.07	.31	.01		1.91	
Bristol	do	.11	T.		.22											.05					.12									.08	.10		0.60	
Greene	do	.19		.27												.16					.19												0.89	
Hope Valley	do	.46														.18					.19												0.83	
Kingston	do	.12			.57											.10					.07		T.	T.						.12	.03		1.01	
Narrag'sett Pier***	do	.02	T.		.50	.16										.08				.03	.15	T.						T.	*	.16	.02		1.12	
Pawtucket	do	.10	.01		.17											.04				*	.32								.02	.05	.01		0.80	
Providence***	do	.10	.03		.17											.07					.13	T.							.30				0.58	
Wallum Lake	do	.50			.23											.18					.42												1.63	
<i>Connecticut.</i>																																		
Bridgeport	Coast				.88	.16			.52							.23					.09	T.	.43					.07	T.	.08	.08		2.73	
Canton	Connecticut	.85			.48				T.	.29						.32				T.	.88		T.	.04					T.	.18	.29		3.24	
Colchester	Coast	.44			.43											.71	.09			.08	.74	T.	.09						T.	.64	.08		1.69	
Cream Hill	Housatonic	.05			.76				.35	.18						T.					.80									*	.30		3.77	
Danielson	Coast	.12			.25				.15	.17						.56	.11				.30	.20				T.	.10			.35	.30	.07	T.	2.97
Falls Village	Housatonic				.67											.07	.02			.03	.40	T.	.03	T.			T.		.11	.30	.12		2.35	
Hartford ***	Connecticut	.29			.30				.01	.07									.40		.62				.02		.10			.25				1.06
Hawleyville	Housatonic				.74	.10															.11								T.	.05	.04		2.07	
Lake Konomocot	Coast				.88	.87			.12							.17	.08			.08	.03	T.	.60	T.	T.	.02		T.		.05	.04		1.85	
New Haven***	do				.88				.01							.20				.17		T.	.24						.05	1.45	.05	.10	3.22	
New London	do				1.01				.05							.50				.48										.04	.16		2.25	
N. Grosvenor Dale	do	.31			.25				.05							.27					.25		.20				.11			.10	.20		1.90	
Norwalk	do				* 1.17				.05							.15				T.	.40		.10				T.			.10	*	.36		1.97
Southington	do	.30			.50	.10			.05											.63				.01					T.	*	*	.07	1.25	
South Manchester	Connecticut	.61			.22				.14							.24	T.				.46				T.				T.				4.14	
Storrs	Coast	.13			.33				T.	.60						.30	.30				.85		.07	.04	.02	.01				.20	.35	.03		0.88
Torrington	Housatonic		.54		.06	.65										.21					.19								.08	.11			1.88	
Voluntown	Coast	.15			* .22											.20				.17		.20	.12		.01				.05				3.22	
Wallingford	do	.09			.84				.05	.15						.60				*	.60	T.	.35		.05					.15	.28			
Waterbury	Housatonic				.81				T.	.45																								

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

Comparative Data for New England for June.

[illegible]



U. S. DEPARTMENT OF AGRICULTURE

WEATHER BUREAU

CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

JULY, 1914

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BY

JOHN W. SMITH

DISTRICT FORECASTER AND SECTION DIRECTOR

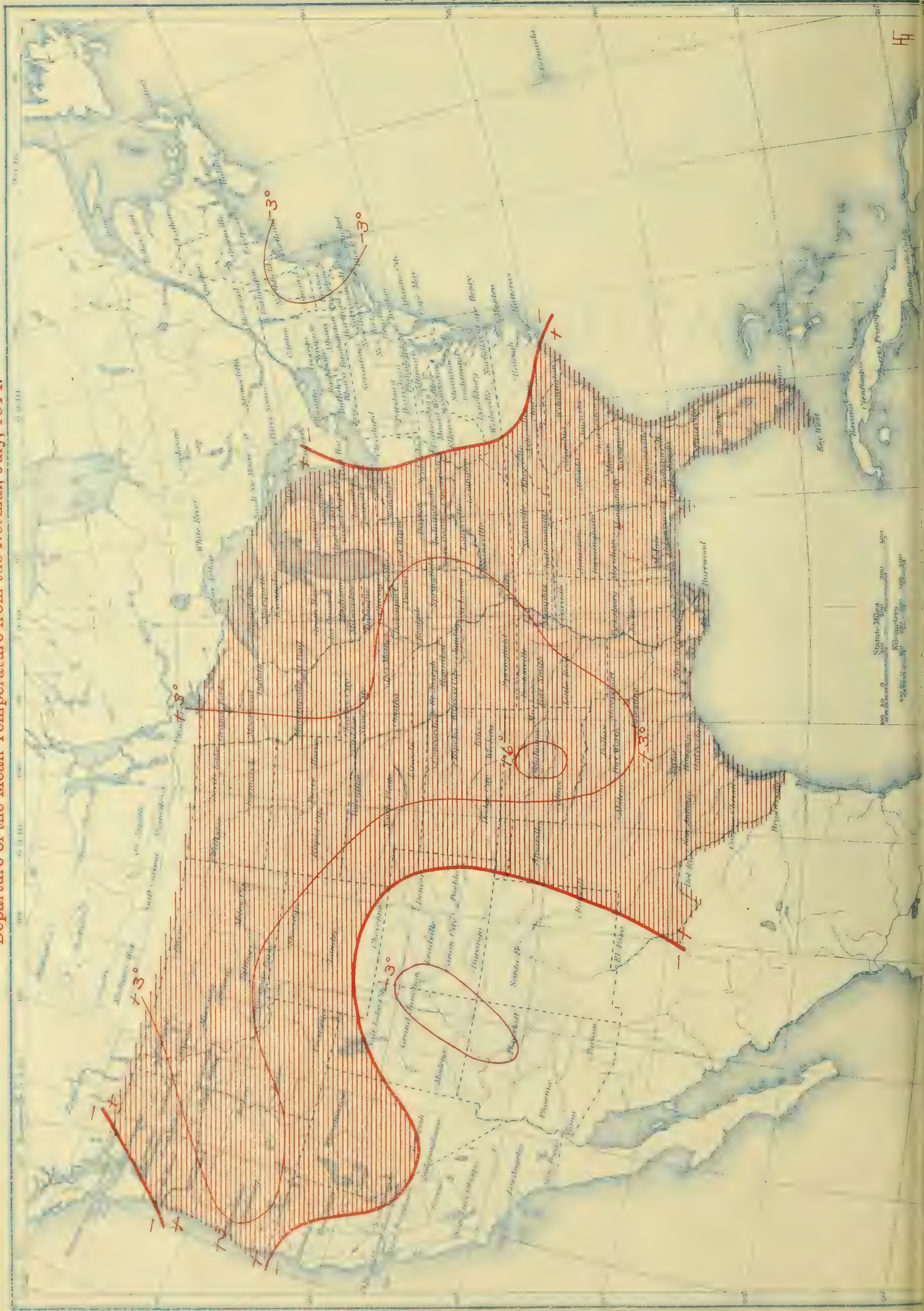
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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
AUGUST 20, 1914



Departure of the Mean Temperature from the Normal, July, 1914.





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, District Forecaster and Section Director.

VOL. XXVI.

BOSTON, MASS., JULY, 1914.

No. 7.

## GENERAL SUMMARY.

The weather was unusually cool for the season through the month, with more than the average amount of cloudiness. The average temperature, with two exceptions, was the lowest of any July since the beginning of section averages in 1888, and the lowest of any July since 1902. There were few days with a maximum temperature of 90° or above, and at many stations the temperature did not reach 90° at anytime during the month. The rainfall was very well distributed through the month and over the section, although it was somewhat less in Maine and New Hampshire than in the other states. Severe thunderstorms, accompanied by hail of unusual size, were reported in some localities. The average number of clear days was the smallest and the number of cloudy days the greatest for any July since 1902. The percentage of sunshine recorded was the lowest of any July since the beginning of automatic records in 1894.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 15 stations reporting, 29.98 inches, was 0.03 inch above the normal for the month. The highest monthly mean was 30.01 inches, at Concord, N. H. The lowest monthly mean was 29.96 inches, at Eastport, Me. The highest recorded was 30.28 inches, at Burlington, Vt., on the 30th. The lowest recorded was 29.66 inches, at Amherst, Mass., on the 20th. The monthly range for the section was 0.62 inch.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 67 stations, was 66.4°, which was 3.2° below the mean for the month last year. The mean departure from the normal for 67 stations having ten or more years' record, was -2.7°. The greatest deficiency was in Rhode Island and the least in Vermont. In comparison with the average temperature of the month in other years since 1888, inclusive, the average temperature has been as low or lower in only two years. These were 1891 and 1902, when the July average temperature was 66.0° and 66.3°, respectively. The warmest July during this period was in 1911, with an average temperature of 72.6°. The average temperature for the several states of the section, was as follows: Maine, 64.9°; New Hampshire, 65.8°; Vermont, 66.0°; Massachusetts, 67.2°; Rhode Island, 65.8°; Connecticut, 68.2°. The temperature was below the normal in all states, the average deficiency in Maine being 2.3° below; New Hampshire, 3.0°; Vermont, 1.9°; Massachusetts, 2.9°; Rhode Island, 4.2°, and Connecticut, 2.5°. The highest monthly mean was 71.8°, at Worcester, Mass.; the lowest 60.1°, at Eastport, Me. The highest temperature recorded was 93°, at Cavendish, Vt., on the 14th. The lowest recorded was 35°, at Bloomfield, Vt., on the 14th. The range for the section was 58°. The greatest local monthly range was 56°, at Enosburg Falls, Vt.; the least, 29°, at Block Island, R. I. The greatest daily range was 45°, at Sque Isle, Me., on the 14th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 15 stations reporting, was 80 per cent, which was 1 per cent above the normal for the month. The highest monthly average was 91 per cent, at Nantucket, Mass.; the lowest, 74 per cent, at Portland, Me.

## PRECIPITATION.

The average for the section, 85 stations reporting, was 3.59 inches, which was 0.93 inch above the average for July, last year. During the past 26 years the July precipitation has been greater in 14 years, and less in 12 years, than that of the present year. The greatest July rainfall during this time was 7.61 inches, in 1889; the least, 2.19 inches, in 1909. The rainfall, for the section as a whole, was slightly below the normal; the deficiency, as determined from 71 stations having 10 or more years' record, being 0.23 inch. The greatest deficiency was in Maine. In Rhode Island, however, there was more than the usual rainfall. The average rainfall for the several states was as follows: Maine, 3.57 inches; New Hampshire, 3.35; Vermont, 4.11; Massachusetts, 3.47; Rhode Island, 4.12; Connecticut, 4.59. The average was below the normal in all the states, except Rhode Island, the deficiency in Maine being 1.04 inches; New Hampshire, 0.53; Vermont, 0.29; Massachusetts, 0.03; Connecticut, 0.22. In Rhode Island the excess was 0.75 inch. The greatest monthly amount was 7.10 inches, at Bridgeport, Conn.; the least, 0.93 inch, at Fairfield, Me. The greatest amount in 24 hours was 3.25 inches, at Westboro, Mass., on the 5th. The average number of days with .01 inch or more of precipitation was 11, the usual number for the month, as determined from the records of the past 27 years.

## WIND.

The prevailing direction of the wind was from the southwest, which is the normal direction for the month. The average monthly wind movement for the section, 15 stations reporting, was 6,612 miles. The average hourly velocity was 8.3 miles, which was 0.6 below the normal for the month. The greatest monthly wind movement was 10,854 miles, at Nantucket, Mass. The least was 3,410 miles, at Concord, N. H. The highest velocity recorded was 56 miles per hour from the northeast, at Block Island, R. I., on the 6th, which is somewhat greater than usually reached in July.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 11; partly cloudy, 10; cloudy, 10, which compares with the normal for July of 13 clear, 11 partly cloudy, and 7 cloudy days. The average per cent of possible sunshine, as determined from the records of 11 stations, was 50, which was 13 per cent below the normal for the month. The greatest per cent of the possible at any station was 64, at Portland, Me.; the least was 36, at Northfield, Vt., and New Haven, Conn.

## DATES OF MISCELLANEOUS PHENOMENA.

*Killing frost*.—Ashland, Me., 22.

*Auroras*.—Ashland, Me., 6; Eastport, Me., 4, 5, 29.

*Halos, Solar*.—Northfield, Vt., 5, 14; Boston, Mass., 8, 14.

*Hail*.—Ashland, Me., 26; Farmington, Me., and Norfolk, Mass., 12; Howe Brook, Me., 25; Concord and Durham, N. H., 11; Hingham, Mass., 21; Nashua, N. H., 11, 18; Plymouth, N. H., 11; Turners Falls, Mass., Hartford, Conn., 11; Northfield, Vt., 5; Bridgeport, Conn., 13; New Haven, Conn., 29.

*Thunderstorms* (dates and number of observers reporting on each): Maine: 5th, 1; 3d, 1; 11th, 4; 12th, 5; 15th, 1; 17th, 18th, 21st, 6; 25th, 4; 26th, 2.

New Hampshire: 5th, 8; 9th, 3; 10th, 1; 11th, 13; 12th, 16th, 2; 17th, 18th, 7; 19th, 30th, 1; 21st, 9; 29th, 2.

Vermont: 1st, 12th, 16th, 19th, 23d, 29th, 1; 5th, 8th, 9th, 5; 7th, 3; 10th, 21st, 4; 11th, 6; 17th, 7; 18th, 3; 25th, 2.

Massachusetts: 9th, 4; 11th, 11; 12th, 10; 16th, 27th, 1; 17th, 29th, 3; 18th, 16; 21st, 24.

Rhode Island: 10th, 11th, 12th, 1; 18th, 2; 21st, 4.

Connecticut: 2d, 6; 6th, 23d, 1; 7th, 29th, 5; 11th, 10; 12th, 13th, 17th, 18th, 27th, 3; 16th, 25th, 26th, 28th, 2; 21st, 14.



## Climatological Data for July, 1914.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Mean.	Temperature, in degrees Fahr.				Precipitation, in inches.				No. of days—					Observer.		
					Departure from the normal.	Highest.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation of 0.01 or more.	Clear.	Partly Cloudy.	Cloudy.		Prevailing direction of wind.	
Bar Harbor	Hancock	20	25	64.4	-1.2	84	15	43	5	28	2.85	-0.14	1.50	0	5	15	13	2	e.	William Miller.
Cornish	York	778	50	66.4	-2.6	80	18	45	41	38	4.58	-0.39	1.42	0	11	10	10	11	ne.	T. H. West.
Eastport	Washington	53	12	60.1	0.3	81	14	47	21	30	1.21	-2.21	0.57	0	8	7	14	10	s.	U. S. Weather Bureau.
Fairfield	Somerset	50	25	63.6	-2.3	85	8	44	14	24	6.55	-2.42	0.32	0	4	23	2	6	s.	E. F. Parker.
Farmington	Franklin	450	17	66.0	-1.4	80	14	43	31	38	2.68	-1.01	0.64	0	9	15	12	4	w.	State Normal School.
Gardner	Kennebec	163	22	64.6	-6.2	86	18	44	22	33	2.58	-0.67	0.98	0	8	20	1	10	w.	Samuel D. Soule.
Greenville	Piscataquis	1,430	19	62.4	.....	88	14	41	22	30	2.62	-1.90	1.00	0	11	.....	.....	.....	U. S. Weather Bureau.	
Houlton	Arroostook	362	12	65.4	.....	81	15	45	57	39	1.31	-1.59	0.95	0	3	15	12	4	sw.	Bangor & Arrostook RR.
Lewiston	Androscoggin	187	49	66.4	-3.1	87	17	49	21	30	2.00	-0.65	1.10	0	6	26	2	3	nw.	Union Water Power Co.
Madison	Somerset	257	11	64.8	.....	91	15	45	4	39	2.38	-1.99	0.92	0	6	26	2	3	nw.	William Jardine.
Middleboro	Plymouth	581	11	65.6	.....	91	15	43	30	42	3.79	+0.14	2.15	0	10	20	5	6	s.	Great Northern Paper Co.
North Bridgton	Cumberland	180	21	67.0	-2.5	89	13	44	4	39	2.70	-1.04	1.07	0	8	6	17	8	s.	G. E. Chadbourne.
Orono	Penobscot	129	15	63.1	-1.9	89	15	42	4	38	2.84	-0.30	0.62	0	8	24	2	5	sw.	Department of Physics.
Patten	.....	350	12	64.1	.....	81	15	40	61	43	.....	.....	.....	.....	.....	.....	.....	.....	se.	Bangor & Arrostook RR.
Penningsville	Lancaster	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Margaret Adams.
Portland	Cumberland	99	14	64.6	-3.1	80	18	48	2	26	3.10	-0.15	1.20	0	10	12	8	11	sw.	U. S. Weather Bureau.
Presque Isle	Arroostook	.....	.....	63.7	.....	89	14	49	22	45	2.23	.....	1.25	0	4	21	6	1	w.	E. M. Libby.
Rumford	Oxford	365	21	66.0	-2.3	88	17	48	47	34	3.74	-0.22	1.78	0	11	15	6	6	nw.	Charles A. Mixer.
Van Buren	Arroostook	40	8	62.8	.....	90	16	40	23	41	2.63	.....	0.86	0	8	17	10	4	sw.	J. M. Thomas.
Winslow	Kennebec	90	19	67.2	-1.3	90	15	45	41	30	1.07	-2.74	0.40	0	5	22	4	5	w.	Hollingsworth & Whitely.
Alston Center	Cheshire	1,120	10	65.2	-6.5	85	17	45	20	31	3.17	-1.22	0.79	0	10	16	7	8	nw.	Frank Howland.
Benton	Grafton	5	5	62.4	.....	81	15	42	21	34	4.42	.....	1.60	0	12	13	7	11	nw.	State Sanatorium.
Bethlehem	.....	1,470	22	63.8	-3.8	87	15	39	22	33	3.57	-0.73	0.60	0	14	16	12	3	w.	Benjamin Tucker.
Concord	Merrimack	350	54	69.7	-2.4	89	17	46	4	33	3.49	-0.38	0.82	0	11	8	12	11	se.	U. S. Weather Bureau.
Durham	Stafford	88	19	66.0	-3.9	89	10	43	4	35	3.27	-0.29	1.46	0	10	10	12	9	nw.	Agr. Exp. Station.
Franklin	Merrimack	440	15	67.2	-2.7	89	13	46	20	35	3.26	+0.04	0.93	0	11	13	9	9	nw.	Dr. C. P. Webster.
Grafton	Grafton	863	28	64.2	-3.6	89	10	36	20	42	2.59	-1.34	0.61	0	8	17	4	10	w.	P. R. Kimball.
Hampden	.....	608	80	66.7	-2.5	90	17	41	10	37	2.67	-0.99	0.65	0	17	3	11	17	ne.	Dartmouth College.
Keene	Cheshire	566	29	67.0	-1.3	89	17	40	20	41	2.24	-2.94	0.64	0	8	12	10	9	nw.	Samuel Wadsworth.
Nashua	Hillsboro	125	29	69.4	-1.3	91	17	47	4	36	4.31	+0.70	0.94	0	9	4	14	13	ne.	C. B. Stevens.
Newton	Rockingham	.....	26	64.8	-4.4	87	17	42	4	34	2.89	-0.72	1.42	0	6	10	17	4	ne.	W. C. Gale.
Plymouth	Grafton	847	26	66.0	-1.6	90	17	42	28	38	4.42	+1.00	1.08	0	13	15	3	13	w.	Hattie G. Trow.
Bloomfield	Essex	7	7	64.2	.....	88	15	35	26	13	3.54	.....	1.12	0	12	19	7	5	s.	Lyman Falls Power Co.
Burlington	Chittenden	404	6	66.6	-1.6	88	17	44	20	32	1.94	+1.84	0.35	0	13	4	18	9	s.	U. S. Weather Bureau.
Canaan	Windsor	910	11	66.6	.....	93	18	39	20	39	5.47	.....	1.72	0	12	7	11	13	n.	Colonial Power Co.
Chesnut Hill	Orange	840	19	65.2	-2.0	87	15	37	20	30	2.60	-1.54	0.90	0	14	10	8	13	n.	W. F. Dewey.
Concord	Addison	517	29	68.4	-2.5	90	15	44	20	36	1.43	+0.90	1.95	0	12	12	11	8	s.	C. H. Lane.
Concord	Franklin	601	22	66.4	-1.2	92	15	36	22	42	3.63	-1.77	0.85	0	13	20	9	2	n.	L. H. Pomeroy.
Hyde Park	Lamont	576	2	66.0	.....	91	15	37	22	14	6.12	.....	1.41	0	16	10	14	6	w.	A. V. Wiswell.
Manchester	Barnstable	389	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	N. M. Canfield.
Northfield	Washington	876	17	63.3	-3.3	85	17	39	22	36	4.22	+0.52	1.03	0	14	4	14	13	s.	U. S. Weather Bureau.
Somerset	Windham	2,096	2	64.1	.....	83	17	48	20	36	3.92	.....	0.84	0	10	0	26	5	nw.	Power Construction Co.
St. Johnsbury	Caledonia	711	21	67.8	-1.3	90	15	41	22	42	4.87	-0.56	1.21	0	15	13	12	6	n.	Fairbanks Museum.
Wells	Rutland	750	21	66.8	-2.2	90	14	43	20	31	2.46	-1.90	0.54	0	10	8	18	8	s.	E. R. Pember.
Woodstock	Windsor	700	22	66.5	-1.8	89	17	42	20	38	6.12	+2.79	1.92	0	12	9	7	15	.....	John S. Eaton.
Amherst	Hampshire	222	25	68.6	-1.9	89	13	45	1	34	3.53	-1.04	0.50	0	14	7	16	8	se.	Agr. Exp. Station.
Blue Hill	Norfolk	640	30	65.0	.....	85	16	47	3	26	3.38	.....	1.19	0	13	8	7	16	sw.	Blue Hill Observatory.
Boston	Suffolk	124	41	68.6	-2.7	90	18	51	3	24	2.64	-0.72	1.21	0	10	8	13	10	sw.	U. S. Weather Bureau.
Chesnut Hill	.....	124	35	68.4	-3.2	89	18	46	4	32	2.77	-0.95	1.04	0	14	13	0	18	.....	Met. Water Board.
Clinton	Worcester	370	18	67.1	.....	85	16	49	21	31	4.02	.....	1.03	0	10	.....	.....	.....	.....	Do.
Concord	Middlesex	159	24	66.6	-3.1	87	17	45	4	32	2.33	-1.01	0.78	0	8	6	12	13	se.	Fred A. Tower.
Fall River	Bristol	200	48	67.2	-3.5	84	18	50	4	22	3.93	+0.33	1.78	0	15	3	24	4	sw.	C. V. S. Remington.
Fitchburg	Worcester	550	31	67.8	-2.7	88	13	48	20	30	2.83	-1.39	1.00	0	9	15	4	12	n.	Dr. A. P. Mason.
Framingham	Middlesex	160	34	68.3	-3.0	89	17	46	4	33	2.76	-0.89	0.86	0	14	.....	.....	.....	.....	Met. Water Board.
Hyannis	Barnstable	31	23	66.8	-6.0	84	15	53	31	20	4.85	+2.05	2.51	0	11	15	12	4	.....	C. F. Sleeper.
Lawrence	Essex	51	30	68.2	-4.4	89	18	48	4	31	2.43	-0.89	1.09	0	9	7	21	3	w.	Essex Company.
Lowell	Middlesex	100	29	69.5	-2.0	87	17	50	4	29	2.77	-0.92	1.10	0	10	.....	.....	.....	.....	Props. Locks & Canals.
Middleboro	Plymouth	53	28	66.3	-2.9	87	18	44	20	34	3.40	+0.32	1.31	0	13	4	10	17	ne.	A. R. Gurney.
Nantucket	Nantucket	47	28	64.6	-2.9	81	26	51	4	18	3.25	+0.57	1.02	0	11	9	13	9	sw.	U. S. Weather Bureau.
New Bedford	Bristol	88	102	67.4	-2.0	88	17	48	4	25	4.53	+1.19	1.88	0	12	12	7	12	sw.	City Engineer.
Norfolk	Norfolk	244	11	65.4	.....	87	13	40	4	40	3.51	.....	1.28	0	7	10	14	7	w.	Ruby H. Martyn.
Plymouth	Plymouth	29	64.4	.....	.....	84	17	45	4											



Continued on page 56

8			.24	.62	.14	4.14
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## Daily Temperatures for July, 1914.

stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	M
<i>Maine.</i>																																
Bar Harbor.....	Maximum.....	62	68	70	78	68	68	72	80	78	76	68	78	82	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84
	Minimum.....	45	48	52	54	43	45	52	52	54	54	52	54	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58
Calais.....	Maximum.....	61	66	69	79	85	82	85	86	86	86	86	86	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88
	Minimum.....	51	49	48	45	49	55	56	60	60	59	59	61	54	52	55	57	67	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Eastport.....	Maximum.....	61	56	57	66	70	68	66	61	68	63	55	68	80	83	83	83	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82
	Minimum.....	48	47	50	49	49	48	50	53	53	49	48	50	56	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58
Greenville.....	Maximum.....	65	73	72	78	78	80	86	84	85	86	86	86	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88
	Minimum.....	45	47	46	47	51	54	48	50	53	53	49	48	83	90	91	87	81	83	82	70	75	71	79	82	83	83	83	83	83	83	83
Millinocket.....	Maximum.....	56	62	77	86	84	82	82	87	87	83	83	76	81	83	85	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86
	Minimum.....	48	48	48	48	52	55	47	57	60	59	59	58	82	86	89	87	80	84	82	75	77	73	75	83	85	85	84	76	74	69	76
Orono.....	Maximum.....	60	63	74	80	82	82	81	84	86	79	82	81	82	86	89	87	80	84	82	75	77	73	75	83	85	85	84	76	74	69	76
	Minimum.....	48	47	47	42	42	42	49	62	85	73	66	69	76	77	80	80	74	79	90	74	77	81	76	65	75	78	84	72	67	63	66
Portland.....	Maximum.....	59	54	65	72	74	69	62	85	73	66	69	76	77	80	80	74	79	90	74	77	81	76	65	75	78	84	72	67	63	66	69
	Minimum.....	52	48	48	52	56	57	57	60	57	56	55	57	62	60	60	62	63	66	58	51	58	51	57	52	59	63	52	53	57	55	54
Prospect Isle.....	Maximum.....	67	68	76	82	85	87	85	83	83	80	76	80	78	80	88	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
	Minimum.....	43	42	41	42	48	53	53	57	61	60	50	51	46	45	53	60	67	62	52	43	46	40	45	41	54	75	45	46	51	40	42
Rumford.....	Maximum.....	65	56	66	78	82	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
	Minimum.....	52	50	50	48	53	56	59	60	64	63	65	61	83	86	86	84	88	84	70	72	75	73	66	80	85	79	74	73	61	70	76
Van Buren.....	Maximum.....	95	70	79	83	80	84	76	82	74	83	76	74	78	89	87	90	85	76	64	66	69	75	79	73	71	70	72	70	77	74	72
	Minimum.....	49	42	41	42	49	55	52	52	45	43	48	41	49	42	65	60	68	62	52	44	47	43	40	54	49	48	52	54	50	42	42
<i>New Hampshire.</i>																																
Alstead Center.....	Maximum.....	59	59	60	77	76	72	66	82	80	77	81	81	82	81	83	82	85	82	76	74	81	73	68	72	80	79	73	67	49	68	74
	Minimum.....	47	47	50	46	55	54	51	59	60	58	61	60	64	58	58	67	70	68	57	45	53	47	54	56	57	60	56	52	54	55	51
Bethlehem.....	Maximum.....	66	56	65	77	79	80	74	84	83	81	82	80	84	84	87	83	86	80	68	72	74	72	62	69	81	77	71	68	59	69	75
	Minimum.....	50	50	51	44	52	49	56	60	60	49	59	60	51	51	54	63	68	66	52	43	53	59	53	51	51	57	45	43	52	41	46
Concord.....	Maximum.....	62	57	50	46	51	56	58	64	61	61	63	61	58	55	58	66	71	71	57	49	53	52	54	54	55	62	58	51	55	54	51
	Minimum.....	51	50	50	46	51	50	51	59	71	87	84	78	81	86	89	88	83	83	88	78	73	79	71	80	88	84	80	72	65	74	78
Franklin.....	Maximum.....	62	51	50	48	50	55	58	61	61	60	63	61	58	55	58	66	71	71	57	49	53	52	54	54	55	62	58	51	55	54	51
	Minimum.....	48	48	48	48	52	55	57	61	63	61	63	61	58	55	58	66	71	71	57	49	53	52	54	54	55	62	58	51	55	54	51
Hanover.....	Maximum.....	74	60	67	81	82	81	72	87	86	81	85	85	89	86	89	85	90	91	91	84	82	90	80	78	83	87	88	84	81	69	76
	Minimum.....	52	52	51	47	51	55	57	61	63	61	63	62	53	51	56	65	71	69	57	41	50	43	52	55	52	56	49	44	52	51	48
Nashua.....	Maximum.....	69	67	67	83	82	82	70	88	84	77	85	86	90	86	85	90	91	91	84	82	90	80	78	83	87	88	84	81	69	76	75
	Minimum.....	51	51	50	47	55	55	57	67	68	60	61	61	60	56	60	67	72	70	63	49	54	51	55	52	61	64	59	57	50	58	53
Plymouth.....	Maximum.....	65	58	60	34	81	79	70	86	81	76	84	84	87	88	89	83	90	84	73	77	77	77	77	77	77	77	77	77	77	77	77
	Minimum.....	52	52	50	46	52	56	58	62	63	60	61	61	52	53	55	61	70	68	59	45	45	45	51	50	50	50	49	42	54	54	59
<i>Vermont.</i>																																
Burlington.....	Maximum.....	72	63	68	78	72	80	74	86	78	82	78	80	82	86	87	87	88	78	69	76	75	76	64	76	83	80	73	69	60	72	78
	Minimum.....	51	51	53	50	60	55	61	63	63	65	61	60	64	58	56	64	71	71	59	64	44	54	56	59	56	61	53	49	54	52	50
Enosburg Falls.....	Maximum.....	73	64	73	82	76	86	82	85	84	85	81	81	84	84	92	91	90	79	73	76	75	77	66	78	85	79	72	71	61	76	80
	Minimum.....	52	55	53	45	52	52	55	64	58	61	61	50	50	47	57	62	70	55	58	42	55	36	54	58	50	58	42	46	52	50	43
Northfield.....	Maximum.....	60	50	66	76	73	80	76	85	82	80	80	79	82	84	84	83	85	78	69	73	71	73	62	70	82	76	69	68	60	71	76
	Minimum.....	52	51	47	46	50	52	57	63	61	62	59	54	59	48	53	61	67	60	45	40	50	39	53	53	49	52	45	41	49	49	44
St. Johnsbury.....	Maximum.....	72	70	70	82	79	85	83	87	87	82	83	83	86	88	90	88	88	88	88	76	75	74	74	86	84	85	83	80	75	80	80
	Minimum.....	53	52	52	48	52	55	58	63	61	63	65	61	53	49	54	62	72	68	55	42	51	41	52	44	58	45	44	54	49	47	47
Wells.....	Maximum.....	72	66	68	81	76	78	70	82	84	82	82	80	86	90	88	85	86	85	74	74	76	75	67	74	80	76	74	72	62	72	76
	Minimum.....	48	55	52	50	56	51	56	60	64	63	64	59	56	60	58	63	68	66	56	43	56	48	55	56	58	58	54	54	54	52	52
<i>Massachusetts.</i>																																
Amherst.....	Maximum.....	73	69	60	81	78	75	68	83	81	75	83	87	89	81	84	85	88	84	77	78	87	81	66	83	81	85	83	71	67	71	77
	Minimum.....	45	56	54	54	58	56	57	62	63	63	61	64	64	59	61	70	73	67	55	47	53	51	55	50	65	61	56	59	57	55	53
Barnstable.....	Maximum.....	66	58	55	71	75	65	62	80	78	68	74	77	79	77	85	83	83	77	77	74	83	74	68	78	78	82	80	66	59	69	68
	Minimum.....	50	50	47	48	55	53	52	59	56	54	59	62	61	61	60	63	68	69	62	51	58	53	55	52	59	64	62	54	53	53	51
Boston.....	Maximum.....	67	60	61	73	79	67	69																								











U. S. DEPARTMENT OF AGRICULTURE

WEATHER BUREAU

CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

AUGUST, 1914

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BY

JOHN W. SMITH

DISTRICT FORECASTER AND SECTION DIRECTOR

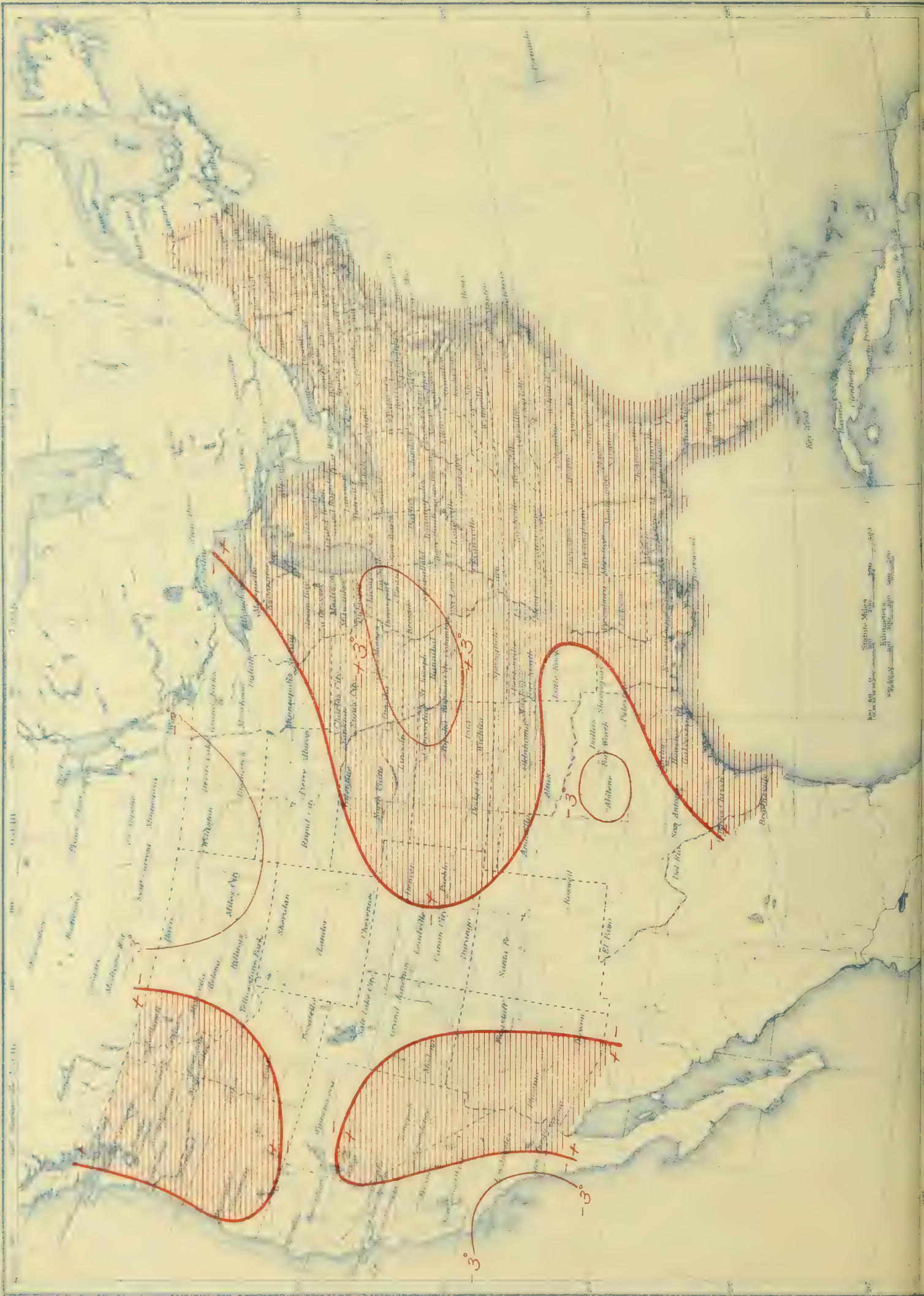
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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
SEPTEMBER 18, 1914



Departure of the Mean Temperature from the Normal, August, 1914.





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, District Forecaster and Section Director.

Vol. XXVI.

BOSTON, MASS., AUGUST, 1914.

No. 8.

## GENERAL SUMMARY.

The weather conditions of the month were normal for the season, except in the amount of sunshine, which was much less than usual. The average temperature was only slightly above the normal for the month, and the extremes were not marked in anyway. There were, however, as in July, comparatively few warm days, or days with maximum temperature above 90°. Light frost occurred in some localities in the northern portion of New Hampshire and Vermont on the 26th, but caused no appreciable injury to vegetation. The rainfall was generally well distributed through the month, but somewhat unevenly over the section, considerably more falling in New Hampshire and Vermont than in the other states. The amounts were generally in excess of 3.00 inches, except in Connecticut, and at only a few stations was less than 2.00 inches recorded. The amount of sunshine was less than in any previous August since the beginning of automatic records in 1894.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 15 stations reporting, 30.01 inches, was 0.03 inch above the normal for the month. The highest monthly mean was 30.02 inches, at a number of stations; the lowest, 29.99 inches, at Burlington, Vt. The highest recorded was 30.32 inches, at Northfield, Vt., on the 26th; the lowest, 29.64 inches, at Eastport, Me., on the 24th. The monthly range for the section was 0.68 inch.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 86 stations, was 67.2°, which was the same as that of August, last year. The mean departure from the normal for 65 stations having ten or more years' record, was +0.2°. Except in Rhode Island and Connecticut, the departures in none of the states exceeded 1°. In comparison with the average temperature of the month in other years since 1888, inclusive, the average temperature has been lower in 14, and higher in 11 years. The warmest August during this period was in 1906, with an average of 70.0°, and the coolest in 1903, with an average of 61.8°. The average temperature of the several states of the section was as follows: Maine, 64.2°; New Hampshire, 66.0°; Vermont, 65.1°; Massachusetts, 68.7; Rhode Island, 68.1°; Connecticut, 70.1°. The departures from the normal were as follows: Maine, -0.5°; New Hampshire, +0.1°; Vermont, +0.3°; Massachusetts, +0.5°; Rhode Island, -1.2°; Connecticut, +1.1°. The highest monthly mean was 73.2°, at Bridgeport, Conn.; the lowest, 59.8°, at Eastport, Me. The highest temperature recorded was 96°, at Cornwall, Vt., on the 10th; the lowest, 32°, at Bloomfield, Vt., on the 25th. The range for the section was 64°. The greatest local monthly range was 60°, at Hyde Park, Vt.; the least, 25°, at Bristol, R. I. The greatest daily range was 42°, at Patten, Me., and Enosburg Falls, Vt., on several dates.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 15 stations reporting, was 84 per cent, which was 3 per cent above the normal for the month. The highest monthly average was 93 per cent, at Nan-

tucket, Mass.; the lowest, 80 per cent, at Amherst and Fall River, Mass., Hartford and New Haven, Conn.

## PRECIPITATION.

The average for the section, 86 stations reporting, was 3.69 inches, which was 0.60 inch above the average for August, 1913. During the past 26 years the August rainfall has been greater in 15 years, and less in 10 years than that of the present year. The greatest August precipitation during this time was 5.67 inches, in 1898; the least, 1.66 inches, in 1907. The rainfall was above the normal in the northern, and below the normal in the southern states. For the section as a whole, the departure from the normal, as determined from 68 stations having ten or more years' record, was -0.15 inch. The average rainfall for the several states was as follows: Maine, 3.65 inches; New Hampshire, 4.58; Vermont, 4.48; Massachusetts, 3.76; Rhode Island, 3.03; Connecticut, 2.57. The departures from the normal were as follows: Maine, +0.59 inches; New Hampshire, +0.96; Vermont, +0.28; Massachusetts, -0.16; Rhode Island, -0.83; Connecticut, -1.82. The greatest monthly amount was 8.50 inches, at Franklin, N. H.; the least, 1.00 inch, at Patten, Me. The greatest amount in 24 hours was 2.80 inches, at Lawrence, Mass., on the 20th-21st. The average number of days with .01 inch or more of precipitation was 11, one above the normal number for the month, as determined from the records of the past 27 years.

## WIND.

The prevailing direction of the wind was from the southwest, which is the normal direction for the month. The average monthly wind movement for the section, 15 stations reporting, was 5,656 miles. The average hourly velocity was 7.6 miles, which was 0.4 below the normal for the month. The greatest monthly wind movement was 9,702 miles, at Nantucket, Mass.; the least, 2,822 miles, at Concord, N. H. The highest velocity recorded was 61 miles per hour from the west, at Block Island, R. I., on the 17th, which is much above the usual maximum velocity reached in August.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 12; partly cloudy, 9; cloudy, 10. The normal for August is 13 clear, 10 partly cloudy, and 8 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having selfrecording instruments, was 52, which was 8 per cent below the normal for the month. The greatest percentage of the possible at any station was 60, at Northfield, Vt.; the least was 46, at Blue Hill Observatory, Hyde Park, Mass. The greatest average of possible sunshine recorded for any August during the past 21 years was 67 in 1895; the least, 52, in 1914.

## DATES OF MISCELLANEOUS PHENOMENA.

*Auroras*.—Ashland and Van Buren, Me., 20.

*Hail*.—Cornish, Me., Rutland, Mass., 8; Bethlehem, N. H., 7.

*Killing frosts*.—Ashland, Me., 4, 26; Farmington and North Bridgton, Me., 26; Oquossoc, Me., 25, 26; Bloomfield, Vt., 25.

*Halos, Solar*.—Northfield, Vt., 15; Blue Hill, Mass., 17, 18, 27; New Haven, Conn., 26.

*Thunderstorms* (dates and number of observers reporting on each).—MAINE: 21. 6; 3d, 3; 7th, 2; 8th, 8; 11th, 10; 12th, 1; 14th, 5; 15th, 4; 17th, 1; 18th, 9; 20th, 1; 21st, 3; 28th, 3.

NEW HAMPSHIRE: 1st, 3; 2d, 4; 3d, 2; 7th, 2; 8th, 5; 11th, 10; 14th, 7; 15th, 2; 17th, 4; 18th, 1; 19th, 1; 20th, 8; 21st, 9; 22d, 2; 28th, 2.

VERMONT: 1st, 1; 2d, 6; 3d, 4; 7th, 4; 8th, 5; 10th, 1; 11th, 5; 12th, 1; 14th, 2; 15th, 3; 16th, 1; 17th, 2; 18th, 3; 20th, 2; 21st, 2; 28th, 2.

MASSACHUSETTS: 1st, 6; 2d, 3; 3d, 1; 8th, 3; 11th, 9; 15th, 4; 16th, 1; 17th, 12; 18th, 8; 19th, 6; 20th, 22; 21st, 22; 22d, 29th, 1; 30th, 5; 31st, 1.

RHODE ISLAND: 3d, 1; 11th, 4; 12th, 1; 15th, 1; 17th, 3; 18th, 2; 20th, 5; 21st, 6; 30th, 3.

CONNECTICUT: 3d, 2; 4th, 1; 8th, 1; 11th, 8; 14th, 1; 17th, 5; 18th, 2; 19th, 10; 20th, 10; 21st, 12; 22d, 1; 28th, 1; 29th, 3; 30th, 9.



## Climatological Data for August, 1914.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.					Precipitation, in inches.				No. of days—				Observer.			
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.		Partly Cloudy.	Cloudy.	Prevailing direction of wind.
Maine.																				
Bar Harbor	Hancock	20	28	59.8	+0.6	90	11	37	26	37	5.98	+1.64	1.61	0	13	7	15	9	nw.	William Miller.
Cornish	York	778	59	66.8	+0.1	77	16	46	26	34	2.54	-0.72	1.24	0	10	5	13	13	s.	T. H. West.
Eastport	Washington	53	42	59.8	+0.1	77	16	46	26	34	2.54	-0.72	1.24	0	10	5	13	13	nw.	U. S. Weather Bureau.
Fairfield	Somerset	90	29	65.0	-0.4	81	21	42	29	32	3.36	+0.31	1.86	0	4	11 <sup>a</sup>	14	15 <sup>a</sup>	nw.	E. F. Parker.
Farmington	Franklin	450	17	65.1	+0.4	88	11	35	26	40	4.41	+0.91	1.58	0	12	8	15	10	sw.	State Normal School.
Gardiner	Kennebec	163	22	64.6	-4.2	84	8	40	26	30	3.77	+0.33	1.07	0	15	19	5	7	s.	Samuel D. Soule.
Greenville	Piscataquis	1,140	10	61.9	.....	83	7	42	26 <sup>†</sup>	33	2.90	-0.36	0.68	0	11	.....	.....	.....	s.	U. S. Weather Bureau.
Houlton	Aroostook	362	12	64.0	.....	88	10	39	26	34	1.01	-1.55	0.35	0	6	16	9	6	s.	Bangor & Aroostook R.R.
Lewiston	Androscoggin	185	40	66.2	-0.9	86	81	44	26	26	4.54	+1.28	1.33	0	13	9	11	11	se.	Union Water Power Co.
Madison	Somerset	257	11	64.0	.....	86	97	35	26	33	6.76	+3.04	2.55	0	10	22	2	7	sw.	William Jardine.
Millinocket	Penobscot	386	11	63.6	.....	86	107	40	26	34	3.05	-0.08	1.01	0	11	16	4	11	sw.	Great Northern Paper Co.
North Bridgton	Cumberland	450	21	67.3	+0.1	89	11	42	26	34	3.70	+0.42	1.50	0	12	3	20	8	sw.	G. E. Chadbourne.
Orono	Penobscot	129	45	66.0	+0.5	85	6	38	26	37	3.05	-0.36	0.97	0	7	19	5	7	sw.	Department of Physics.
Patten	.....	550	12	61.0	.....	86	6	35	26	42	1.00	.....	0.55	0	4	8 <sup>a</sup>	10 <sup>a</sup>	8 <sup>a</sup>	sw.	Bangor & Aroostook R.R.
Portland	Cumberland	99	43	64.1	-2.1	81	15	47	26	23	3.81	+0.24	1.21	0	17	6	10	15	sw.	Margaret Adams.
Presque Isle	Aroostook	5	60.2	.....	.....	87	7	35	23 <sup>†</sup>	42	2.35	.....	0.65	0	9	22	5	4	w.	U. S. Weather Bureau.
Rumford	Oxford	505	21	65.4	-0.3	88	11	42	26	31	5.02	+1.84	2.06	0	10	21	6	4	nw.	E. M. Libby.
Van Buren	Aroostook	510	9	60.0	.....	88	7	35	26	36	4.16	.....	1.03	0	12	15	7	9	s.	Charles A. Mixer.
Winslow	Kennebec	90	19	66.9	+1.2	87	11	39	26	36	4.88	+1.89	2.38	0	11	12	12	7	w.	J. M. Thomas.
New Hampshire.																				
Alstead Center	Cheshire	1,120	10	65.7	.....	89	91	45	25 <sup>†</sup>	29	5.35	.....	1.07	0	12	17	5	9	nw.	Frank Dewing.
Benton	Grafton	.....	5	62.8	.....	90	10	38	25	28	3.27	.....	1.00	0	10	13	9	9	se.	State Sanatorium.
Bethlehem	.....	1,470	22	63.4	-0.8	89	10	37	26	31	4.39	+0.47	1.17	0	13	20	5	6	sw.	Benjamin Tucker.
Concord	Merrimack	350	54	66.7	+0.1	91	10	43	26	31	5.91	+2.17	1.53	0	12	5	16	10	nw.	U. S. Weather Bureau.
Durham	Stafford	88	19	66.4	-1.6	89	8	41	26	32	3.46	+0.38	1.48	0	14	16	2	13	nw.	Agr. Exp. Station.
Franklin	Merrimack	440	15	66.9	+1.3	90	10	42	25 <sup>†</sup>	34	8.50	+5.16	1.94	0	13	14	7	10	nw.	Dr. C. P. Webster.
Grafton	Grafton	863	28	64.7	0.0	90	10	35	25 <sup>†</sup>	40	5.14	+1.55	1.07	0	10	16	7	8	w.	P. R. Kimball.
Hanover	.....	603	80	67.2	+1.1	95	10	39	26	37	3.62	+5.23	1.26	0	15	4	14	13	sw.	Dartmouth College.
Keene	Cheshire	506	29	67.4	+1.2	94	10	38	25	39	5.08	+0.90	1.24	0	12	15	9	7	sw.	Samuel Wadsworth.
Nashua	Hillsboro	125	29	70.0	+1.4	95	10	45	26	33	3.10	-0.78	1.57	0	11	7	11	13	sw.	C. B. Stevens.
Newton	Rockingham	.....	26	66.0	-1.0	89	91	39	26	34	2.94	-0.21	1.27	0	9	7	19	5	sw.	W. C. Gale.
Plymouth	Grafton	500	26	65.2	-0.5	88	8	37	26	32	4.23	-0.28	1.20	0	10	18	3	10	e.	Hattie G. Trow.
Vermont.																				
Bloomfield	Essex	.....	7	62.6	.....	89	10	32	25	35	3.20	.....	1.04	0	15	17	7	7	s.	Lyman Falls Power Co.
Burlington	Chittenden	404	6	66.0	-0.1	94	10	40	26	34	2.78	-1.23	0.79	0	13	7	14	10	s.	U. S. Weather Bureau.
Cavendish	Windsor	910	11	66.2	.....	94	10	38	25 <sup>†</sup>	36	6.17	.....	1.68	0	9	4	17	10	n.	Colonial Power Co.
Chelsea	Orange	840	19	64.9	+1.0	93	10	38	25 <sup>†</sup>	36	3.94	+0.67	1.48	0	10	11	10	10	n.	W. F. Dewey.
Cornwall	Addison	517	20	69.2	+1.3	96	10	43	25	34	5.28	+1.55	2.05	0	11	10	13	8	n.	C. H. Lane.
Enosburg Falls	Franklin	601	22	63.4	-1.2	92	10	33	25	42	4.94	+0.80	1.19	0	14	12	13	6	s.	L. H. Pomeroy.
Hyde Park	Lamoille	576	2	64.3	.....	94	10	34	25 <sup>†</sup>	41	5.45	.....	1.90	0	15	14	7	10	nw.	A. V. Wiswell.
Manchester	Bennington	980	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	n.	N. M. Canfield.
Northfield	Washington	876	27	62.6	-0.3	91	10	34	26	35	3.14	-0.79	1.05	0	16	4	18	9	s.	U. S. Weather Bureau.
Somerset	Windham	2,096	2	62.2	.....	87	9	41	26	32	4.64	.....	1.13	0	15	6	14	11	sw.	Power Construction Co.
St. Johnsbury	Caledonia	711	21	66.3	+1.9	93	10	37	25 <sup>†</sup>	40	4.98	+1.15	1.35	0	15	13	13	5	nw.	Fairbanks Museum.
Wells	Rutland	750	21	69.8	-0.6	92	10	40	25	30	4.96	-0.17	1.20	0	15	9	14	8	s.	E. R. Pember.
Woodstock	Windsor	700	22	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	s.	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	25	69.8	+1.6	95	9	47	25 <sup>†</sup>	32	5.11	+0.84	1.85	0	10	9	12	10	sw.	Agr. Exp. Station.
Blue Hill	Norfolk	640	30	66.9	-0.5	88	10	50	25	26	4.59	+0.52	1.14	0	14	10	7	14	sw.	Blue Hill Observatory.
Boston	Suffolk	124	44	70.4	+1.5	90	10	55	25	35	3.20	-0.83	1.30	0	11	7	10	14	sw.	U. S. Weather Bureau.
Chestnut Hill	.....	124	35	69.6	0.0	92	10	46	29	31	3.83	-0.45	1.24	0	14	21	0	10	.....	Met. Water Board.
Clinton	Worcester	370	18	68.3	.....	89	9	48	25 <sup>†</sup>	29	3.78	.....	1.18	0	12	.....	.....	.....	.....	Do.
Concord	Middlesex	139	24	67.8	+0.4	92	10	45	25 <sup>†</sup>	31	3.71	+0.06	0.95	0	12	8	11	12	s.	Fred A. Tower.
Fall River	Bristol	200	48	69.5	-0.7	85	9	54	26	20	2.73	-1.40	0.93	0	12	6	19	6	sw.	C. V. S. Remington.
Fitchburg	Worcester	550	31	69.1	+0.8	93	91	45	26	30	2.52	-2.28	1.06	0	9	16	5	10	w.	Dr. A. P. Mason.
Frammingham	Middlesex	160	34	69.8	+1.0	92	10	48	25 <sup>†</sup>	32	3.50	-0.57	1.13	0	10	.....	.....	.....	.....	Met. Water Board.
Hyannis	Barnstable	31	23	68.6	-2.7	84	19	53	27	20	3.70	+0.47	1.09	0	8	14	12	5	.....	C. F. Sleeper.
Lawrence	Essex	51	30	69.0	-0.6	91	10	48	25 <sup>†</sup>	29	3.92	-0.10	2.80	0	12	8	16	7	sw.	Essex Company.
Lowell	Middlesex	100	29	70.4	+1.0	90	107	50	25 <sup>†</sup>	29	3.61	-0.65	1.25	0	12	.....	.....	.....	.....	Props. Locks & Canals.
Middleboro	Plymouth	53	28	68.3	+0.8	88	9	44	25 <sup>†</sup>	30	3.11	-0.53	1.14	0	12	2	14	15	sw.	A. R. Gurney.
Nantucket	Nantucket	47	28	67.6	-0.4	84	19	53	26	16	4.42	+1.36	1.97	0	11	4	19	8	sw.	U. S. Weather Bureau.
New Bedford	Bristol	88	102	69.0	+0.7	84	24	56	25 <sup>†</sup>	21	3.17	-1.09	1.03	0	12	12	7	12	sw.	City Engineer.
Norfolk	Norfolk	244	11	66.5	.....	89	9	40	26	34	4.70	.....	1.80	0	8	15	6	10	w.	Ruby H. Martyn.
Plymouth	Plymouth	.....	29	66.0	.....	87	18	51	27	29	4.68	.....	1.43	0	11	14 <sup>a</sup>	8 <sup>a</sup>	8 <sup>a</sup>	w.	L. B. Knapp.
Provincetown	Barnstable	40	27	67.6	-1.6	83	24	55	27	20	3.64	+0.46	0.92	0	8	17	0	14	sw.	Gideon Bowley.
Rockport	Essex	25	12	65.6	.....	82	24	50	30	18	2.09	.....	0.90	0	10	9	6	16	sw.	C. F. P. Bearse.
Rutland	Worcester	1,160	12	67.0	.....	91	9	48	24 <sup>†</sup>	29	4.97	.....	1.17	0	16	12	9	10	sw.	State Sanatorium.
Springfield																				



## Day of month.

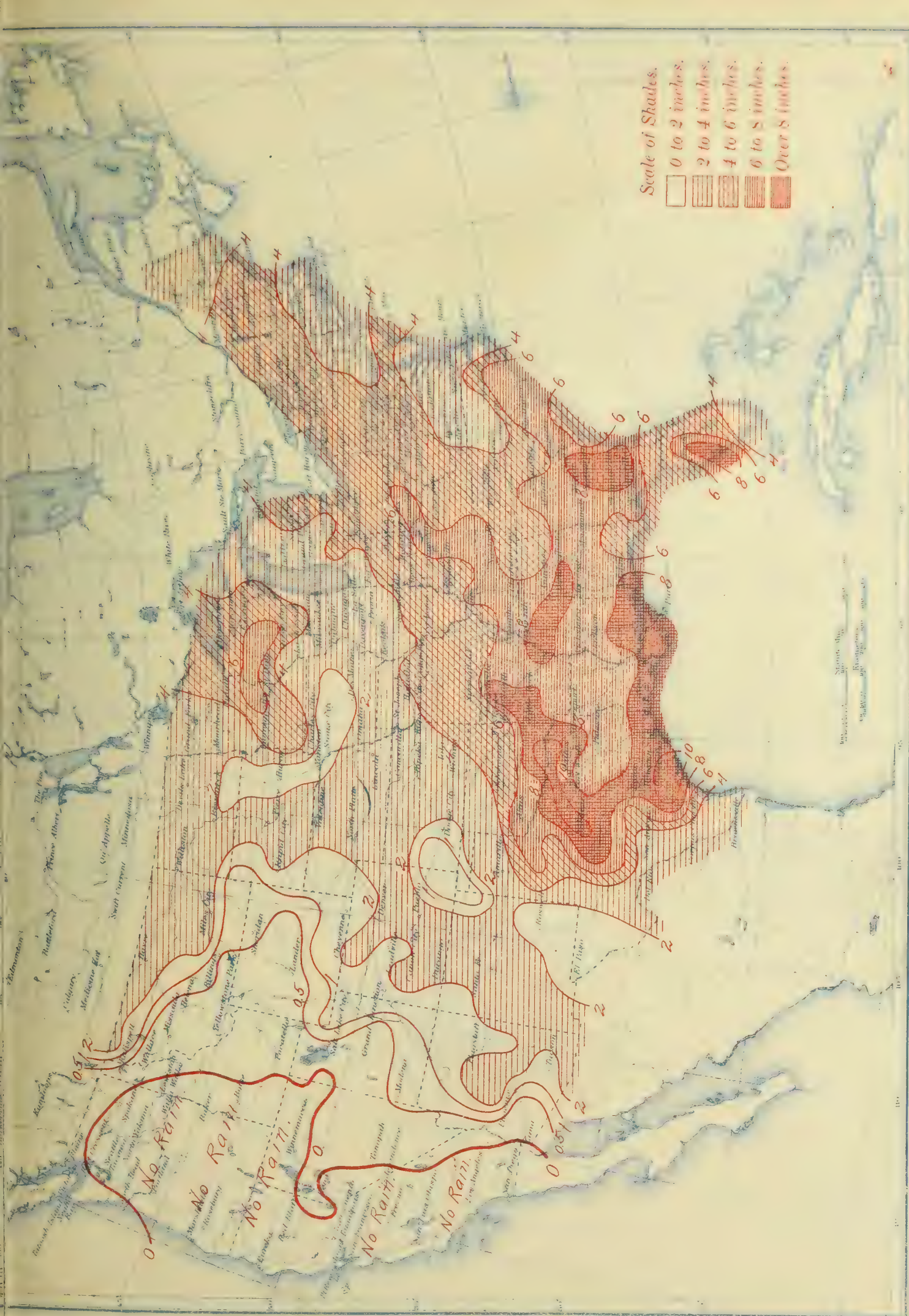
Continued on page 64



## Daily Temperatures for August, 1914.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean
Maine																																
Bar Harbor	Maximum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bar Harbor	Minimum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cornish	Maximum	52	57	79	73	79	84	85	88	86	83	90	80	80	82	81	81	84	88	80	92	81	81	77	74	74	77	64	64	73	79	79
Cornish	Minimum	56	52	59	55	59	55	55	61	60	59	62	54	60	51	56	57	55	62	57	55	56	45	57	47	46	37	48	57	54	55	48
Eastport	Maximum	65	67	65	64	60	77	59	62	72	70	59	68	74	70	63	63	77	73	63	76	76	61	76	68	76	65	63	65	56	56	61
Eastport	Minimum	54	51	52	52	52	53	49	52	52	53	53	54	54	55	51	54	53	04	51	57	56	54	57	54	49	46	48	51	48	52	56
Greenville	Maximum	74	78	70	72	74	82	83	76	82	81	82	79	72	63	74	70	78	78	78	64	72	76	70	60	67	68	65	58	60	73	72
Greenville	Minimum	52	55	55	46	48	50	50	60	53	57	63	53	45	44	57	53	54	51	60	46	52	56	44	53	44	42	42	47	53	51	53
Milbrook	Maximum	74	82	72	75	75	84	82	79	82	86	86	74	76	74	76	77	78	73	81	80	74	72	76	76	75	70	73	68	10	60	75
Milbrook	Minimum	53	52	59	46	48	50	51	51	51	54	64	56	46	46	59	59	54	51	54	46	57	54	52	43	46	40	43	47	56	53	52
Orono	Maximum	77	83	83	76	76	85	84	84	84	84	84	83	84	83	82	84	83	78	77	78	78	79	80	82	82	80	80	76	73	71	68
Orono	Minimum	54	54	58	54	54	48	58	59	58	54	63	60	46	51	58	51	55	49	60	48	56	58	44	62	45	38	43	54	53	54	50
Portland	Maximum	80	78	72	62	69	71	60	74	63	65	76	71	67	70	81	79	72	75	78	72	64	80	72	78	70	65	67	62	58	67	76
Portland	Minimum	58	58	61	56	55	53	57	61	58	57	66	64	57	55	65	61	53	61	58	64	58	56	60	55	56	48	47	53	57	55	54
Presque Isle	Maximum	47	51	55	57	50	46	55	57	41	55	50	51	49	39	50	49	49	52	62	61	50	54	35	35	38	36	40	35	44	54	45
Presque Isle	Minimum	47	51	55	57	50	46	55	57	41	55	50	51	49	39	50	49	49	52	62	61	50	54	35	35	38	36	40	35	44	54	45
Rumford	Maximum	78	81	74	70	74	83	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84
Rumford	Minimum	56	54	60	51	56	52	60	66	61	68	61	56	50	55	55	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58
Van Buren	Maximum	71	77	70	73	79	87	88	83	77	74	80	87	76	77	65	77	72	80	69	69	76	66	74	69	63	59	63	67	68	70	61
Van Buren	Minimum	46	59	56	37	43	53	53	43	44	58	55	47	42	43	56	48	45	15	54	58	45	50	37	50	40	35	39	37	41	52	55
New Hampshire																																
Alstead Center	Maximum	78	89	71	67	72	73	81	85	89	89	82	70	75	71	76	72	77	71	78	69	65	26	74	73	68	71	71	68	63	75	76
Alstead Center	Minimum	62	62	57	47	57	57	55	63	60	66	70	59	54	55	56	72	75	77	71	78	62	58	55	55	45	45	48	58	55	51	56
Bedford	Maximum	77	82	70	75	78	82	85	84	84	89	85	70	73	72	75	72	77	73	80	75	64	73	76	73	63	64	70	67	61	65	73
Bedford	Minimum	53	51	58	41	49	51	57	62	56	61	66	51	35	50	49	54	53	54	63	50	54	57	48	50	40	37	45	53	54	54	51
Concord	Maximum	74	84	76	69	74	81	83	86	89	91	86	89	91	86	78	79	74	74	83	73	63	79	80	77	69	73	75	63	60	72	80
Concord	Minimum	58	56	60	56	58	56	58	66	62	62	71	60	60	55	55	51	59	56	65	59	58	61	50	54	46	43	49	59	50	56	52
Franklin	Maximum	82	85	76	74	78	83	85	88	89	90	87	73	62	55	51	59	56	65	65	59	58	61	50	54	46	43	49	59	50	56	52
Franklin	Minimum	58	51	59	54	59	55	60	62	61	64	69	62	55	51	51	53	52	57	56	61	60	55	58	49	60	42	42	49	59	52	52
Hanover	Maximum	80	86	76	76	81	85	88	91	93	95	88	76	71	59	52	48	54	50	58	57	64	58	56	59	49	55	43	39	48	54	80
Hanover	Minimum	53	49	60	46	58	54	62	67	59	62	71	59	52	48	54	50	58	57	64	58	56	59	49	55	43	39	48	54	54	79	79
Nashua	Maximum	85	87	81	69	72	81	83	91	92	95	88	73	62	55	51	59	56	65	65	61	88	82	73	83	55	84	77	77	78	72	83
Nashua	Minimum	58	57	64	56	58	55	57	66	64	63	72	61	60	58	62	62	62	62	62	66	66	66	66	66	66	66	66	66	66	66	66
Plymouth	Maximum	75	81	74	72	78	82	84	88	84	88	84	87	86	75	77	69	76	77	76	81	74	64	78	71	66	68	73	69	62	71	75
Plymouth	Minimum	55	51	59	46	58	54	58	64	62	65	69	60	55	49	54	54	57	56	62	56	55	53	46	58	39	37	45	59	55	55	55
Vermont																																
Burlington	Maximum	79	82	68	78	79	85	89	81	84	94	81	69	76	72	74	74	80	71	79	72	74	75	79	73	65	66	69	70	64	72	
Burlington	Minimum	59	61	50	44	58	65	67	60	54	62	63	54	54	58	57	57	56	63	60	55	60	55	60	55	52	56	49	40	48	56	58
Enosburg Falls	Maximum	79	80	69	80	84	86	88	81	84	92	83	72	77	75	77	75	80	74	79	76	75	73	78	74	66	72	66	56	68	70	77
Enosburg Falls	Minimum	47	52	54	38	50	56	60	61	48	55	67	51	44	44	54	53	51	57	60	46	46	47	45	51	33	35	47	47	58	53	49
Northfield	Maximum	76	82	67	73	78	82	88	85	82	91	83	70	73	69	73	73	78	73	79	69	70	74	78	76	64	65	71	70	63	70	76
Northfield	Minimum	48	49	43	38	52	54	53	60	53	56	64	55	50	49	43	47	55	53	54	49	56	50	47	48	37	34	44	55	55	52	51
St. Johnsbury	Maximum	81	84	80	80	84	87	90	87	82	93	91	79	77	74	76	75	80	77	83	78	67	76	80	82	75	69	73	71	70	69	77
St. Johnsbury	Minimum	41	50	59	43	52	53	55	65	59	71	65	53	50	50	52	54	57	55	50	56	59	48	57	37	37	46	54	56	65	52	53
Wells	Maximum	74	82	68	75	75	86	78	88	88	92	82	72	75	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74
Wells	Minimum	52	56	55	50	56	60	56	60	58	66	68	54	50	53	55	52	56	58	65	60	58	56	54	55	40	41	46	60	56	58	56
Massachusetts																																
Amherst	Maximum	83	85	82	71	72	83	87	91	95	93	83	71	82	81	85	81	85	82	85	77	77	73	83	82	78	75	77	71	62	77	81
Amherst	Minimum	57	56	63	57	59	61	63	70	63	71	71	62	59	52	63	54	61	57	67	64	61										







Stations.	Watershed.	Day of month.																																Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
<i>Rhode Island.</i>																																		
Block Island ***	Coast	.22		T.								.50	.27					.40	.01	.05	.05	.98								.02	1.15		3.1	
Bristol	do	.18			T.	T.						*	.09					T.	.01	T.	.35	*	.99						T.	*	.63		2.2	
Greene	do	.20		.01	.57							.17	.02					.03			.10	1.10								.28	.10		2.2	
Hope Valley	do	.24		.12	.35							.04	.20			.33		T.	T.		.40	.62							T.	.61			2.2	
Kingston	do	.32		.10	.05							.27	.12					.04		.06	.12	1.03						.03	.60	.32			3.0	
Narrag'sett Pier ***	do	.34		.05	.01							.03	1.67			.05		.05	T.		.04	1.05	.07						.02	.72	.03		4.1	
Pawtucket	do		*	.22		.01						T.	.10	.05				.52		.58	.13	1.09										.35	2.4	
Providence ***	do	.14	.01	.08	T.	T.			T.			.13	.05					.02	.12	T.	.04	1.18			T.				T.	.23	.02		2.0	
Wallum Lake	do	.35			.30	.05	.15					.30	.10					.60	.08		.87	1.40								.42			4.8	
<i>Connecticut.</i>																																		
Bridgeport	Coast			T.		.25	T.				T.	.45	.03					T.			1.19									.10	.31	.19	2.5	
Canton	Connecticut		.11	.02					T.			.34	.05					.67	T.	.09	.56	.68							.15	.48	.06		3.3	
Colechester	Coast		.05	.23							T.	.13	T.					T.		.08	.15	.62	.03		T.					.29	.31		1.8	
Cream Hill	Housatonic		.10									.62	.40					.15	.03	.32	.39	.63							.04	.12	.05		2.2	
Danielson	Coast		1.30			.10			T.			T.						*	.25		.25	.50								.15	.20		2.7	
Falls Village	Housatonic		.07									.40	.48					.16	.11	.23	.20	.59							.04	.20			2.2	
Hartford ***	Connecticut		.02	T.				.06				.25	T.				T.	.09	.07	.02	.45	.54			T.									

### Comparative Data for New England for August.

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U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU

CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

SEPTEMBER, 1914

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BY

JOHN W. SMITH

DISTRICT FORECASTER AND SECTION DIRECTOR

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
OCTOBER 21, 1914



Departure of the Mean Temperature from the Normal, September, 1914.





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, District Forecaster and Section Director.

VOL. XXVI. BOSTON, MASS., SEPTEMBER, 1914. No. 9.

## GENERAL SUMMARY.

The month was marked by an unusually small rainfall, a large amount of sunshine, and marked extremes in temperature. The average rainfall for the section was the lowest of any September record since the beginning of sectional averages in 1888, although not the lowest of any month, February, 1901, having only 0.96 of an inch; May, 1903, 0.68, and June, 1912, 0.93. The rainfall in Vermont and northern Maine, although below normal, was not unusually deficient. In the remainder of the section it was the least of record for any month at many of the stations, some having records covering more than fifty years. While the average temperature differed but little from the normal, the highest and lowest temperatures at many points equalled or exceeded any previous September record, particularly the extreme temperature. No general killing frost occurred until the close of the month. Snow fell in many localities and on the mountains in the northern states on the 28th and 29th.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 15 stations reporting, 30.11 inches, was 0.04 inch above the normal for the month. The highest monthly mean was 30.16 inches, at Fall River, Mass; the lowest, 30.04 inches, at Eastport, Me. The highest recorded was 30.56 inches, at Concord, N. H., and Burlington, Vt., on the 14th; the lowest, 29.63 inches, at Eastport, Me., on the 7th. The monthly range for the section was 0.93 inch.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 15 stations, was 60.2°, which was 1.6° above the mean of September, 1913. The mean departure from the normal for 65 stations having ten or more years' record, was +0.1°. The mean temperature of Maine, Massachusetts and Connecticut, was slightly above, and of the remaining states slightly below the normal. As compared with the average temperature of the month in other years since 1888, the average temperature has been lower in 14 and higher in 12 years. The warmest September in this period was in 1891, with an average of 63.8°; the least was in 1893, with an average of 56.1°. The average temperature of the several states of the section, was as follows: Maine, 59.4°; New Hampshire, 58.1°; Vermont, 56.4°; Massachusetts, 61.8°; Rhode Island, 61.8°; Connecticut, 62.2°. The departures from the normal were as follows: Maine, +1.4°; New Hampshire, -0.4°; Vermont, -0.8°; Massachusetts, +0.2°; Rhode Island, -1.5°; Connecticut, +0.2°. The highest monthly mean was 66.6°, at New London, Conn.; the least, 52.3°, at Somerset, Vt. The highest temperature recorded was 97°, at Nashua, N. H., Amherst, Mass., and Waterville, Conn., on the 22d; the lowest, 18°, at Norfolk, Mass., on the 29th. The range for the section was 79°. The greatest monthly range was 60°, at Norfolk, Mass.; the least, 41°, at Provincetown, Mass. The greatest daily range was 55°, at Eastport, Me., on the 21st.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 15 stations reporting, was 72 per cent, which was 10 per cent below the normal for the month. The highest monthly average was 84 per cent, at Con-

cord, N. H.; the lowest, 66 per cent, at Northfield, Vt., and New Haven, Conn.

## PRECIPITATION.

The average for the section, 87 stations reporting, was 0.98 inches, which was 2.27 inches below the average of September, 1913, and also the smallest September rainfall of record since sectional averages have been made, beginning in 1888. The next lowest amount for September during this period was 1.09 inches, in 1908. The greatest for any September was 8.29 inches, in 1888. The rainfall was below normal in all the states, the least deficiency being in Vermont and the greatest in Connecticut. For the section as a whole, the deficiency, as determined from 69 stations having ten or more years' record, was 2.55 inches. The average rainfall of the several states was as follows: Maine, 1.59 inches; New Hampshire, 0.70; Vermont, 2.12; Massachusetts, 0.57; Rhode Island, 0.77; Connecticut, 0.38. The departures from the normal were as follows: Maine, -2.17 inches; New Hampshire, -3.00; Vermont, -0.91; Massachusetts, -2.81; Rhode Island, -2.60; Connecticut, -3.19. The greatest monthly amount was 4.07 inches, at Van Buren, Me.; the least, 0.12 inch, at Concord, Mass. The greatest amount in 24 hours was 1.70 inches, at Plymouth, Mass., on the 4th. The average number of days with .01 inch or more of precipitation was 5, only one-half the usual number for the month.

## WIND.

The prevailing direction of the wind was from the northwest, the prevailing direction for the month, as determined from the records of the past 27 years, is from the northeast, although at this season variable winds are common. The average monthly wind movement for the section, 15 stations reporting, was 6,324 miles. The average hourly velocity was 8.8 miles, which was 0.2 below the normal for the month. The greatest monthly wind movement was 10,792 miles, at Block Island, R. I.; the least, 2,830 miles, at Concord, N. H. The highest velocity recorded was 48 miles per hour from the west, at Block Island, R. I., on the 3d. This is lower than the usual September maximum velocity.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 17; partly cloudy, 8; cloudy, 5. The normal for month is 12 clear, 9 partly cloudy, and 9 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having selfrecording instruments, was 71, which was 18 per cent above the normal for the month, and with the exception of the month in 1903, with an average of 77 per cent, the greatest of any September since the beginning of the record in 1894. The smallest average of any September was 41 per cent in 1907. The greatest percentage of possible sunshine at any station was 85, at Providence, R. I.; the least, 53, at Burlington, Vt.

## DATES OF MISCELLANEOUS PHENOMENA.

*Auroras*.—Maine: Ashland, 18, 23, 27; Eastport, 27, 28, 30; Millinocket, 28, 29; North Bridgton, 28, 30; Portland, 28. New Hampshire: Benton, 17; Durham, 27. Massachusetts: Fall River, 27; Hingham, 25.

*Hail*.—Cornish, Millinocket, Portland, Rumford, Me., Newton, N. H., Burlington, Vt., Amherst, Rutland, Springfield, Mass., 28.

*Thunderstorms* (dates and number of observers reporting on each)—Maine: 1st, 2d, 3d, 9th, 25th, 1; 7th, 5; 23d, 6; 24th, 4. New Hampshire: 2d, 3; 7th, 30th, 1; 23d, 6; 24th, 3. Vermont: 1st, 3d, 6th, 1; 2d, 5; 7th, 30th, 2; 23d, 6; 24th, 3. Massachusetts: 2d, 24th, 1; 3d, 3; 4th, 7; 30th, 5. Rhode Island: 4th, 5; 29th, 1; 30th, 6. Connecticut: 2d, 3d, 24th, 2; 25th, 3; 30th, 6.



## Temperature, in degrees Fahr.

The departures from normal temperature and precipitation are computed only for such stations as have ten or more years of record, but all complete reports are used in determining section or division means. Reference letters, <sup>a</sup>, <sup>b</sup>, <sup>c</sup>, appearing in the table indicate number of days missing; for example, <sup>b</sup> represents two days, etc.

<sup>a</sup> Also on other dates. <sup>\*</sup>Received too late to be included in annuals and summaries. <sup>\*\*</sup>Temperature data are from observed readings of the dry bulb; means are computed from observed readings. <sup>T</sup> Precipitation is less than 0.01 inch rain or melted snow. <sup>§</sup> Thermometers not supplied by Weather Bureau.

<sup>†</sup> Post office addresses of these stations are as follows: Cornwall, Middlebury, Vt.; Blue Hill, Hyde Park, Mass.; Cream Hill, W. Cornwall, Conn.; Canton, Collinsville, Conn.



## Day of month.

Continued on page 72



## Daily Temperatures for September, 1914.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean
Massachusetts.																																
Barnstable	78	72	86	82	76	72	80	72	70	65	66	68	70	72	80	82	85	86	69	74	89	91	92	92	80	72	68	62	55	62	68	74.6
Barnstable	54	52	54	62	56	55	55	50	46	45	39	38	40	48	56	57	55	50	42	42	56	72	46	62	58	46	40	31	32	31	49.9	
Barnstable	83	89	86	78	77	76	82	68	63	68	66	64	73	77	81	83	87	87	77	74	89	92	91	83	72	67	48	55	60	56	75.4	
Cornish	50	65	62	55	46	45	49	41	36	42	34	38	37	41	42	45	46	43	40	54	56	58	60	55	45	37	32	25	34	45.6		
Cornish	75	62	77	72	70	61	68	60	64	57	60	59	65	71	76	80	81	75	63	60	80	81	76	69	63	56	47	55	50	54	65.9	
Cornish	54	53	54	56	52	51	54	49	49	47	47	46	45	46	51	53	56	54	49	48	51	63	57	54	54	42	39	38	35	37	49.5	
Cornish	79	78	77	67	68	67	67	59	58	55	60	61	67	72	75	79	81	74	67	73	83	88	89	73	58	52	44	42	49	54	66.9	
Cornish	52	60	61	48	47	48	48	49	49	47	43	41	50	39	38	44	47	55	52	44	40	57	62	62	57	51	41	37	31	28	46.6	
Cornish	84	74	81	76	74	72	72	66	65	60	65	66	70	78	80	85	85	80	71	68	88	61	91	78	69	59	50	42	55	58	71.7	
Cornish	54	60	64	52	49	48	48	49	49	47	38	35	33	36	39	51	50	60	44	38	55	63	58	59	53	44	38	29	27	28	46.6	
Cornish	82	81	84	85	79	71	78	73	65	63	63	65	71	74	78	81	84	86	81	70	87	89	91	89	76	56	60	56	53	57	74.3	
Cornish	52	66	66	54	46	46	49	51	45	35	35	35	36	39	39	48	48	53	46	38	50	58	58	56	55	46	34	27	23	30	70.0	
Cornish	77	88	86	85	68	68	81	62	58	57	61	63	66	72	75	81	85	87	74	91	92	86	72	66	57	48	48	48	55	56	70.6	
Cornish	78	70	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Cornish	82	78	75	62	68	72	71	72	60	56	65	65	70	75	78	82	82	76	73	65	87	90	90	81	60	50	52	44	50	60	70.0	
Corn																																







Day of month.

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.  
 †† Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.

[illegible]



U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU

CHARLES F. MARVIN, CHIEF

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27 NOV 1914

# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

OCTOBER, 1914

BY

JOHN W. SMITH

DISTRICT FORECASTER AND SECTION DIRECTOR



BOSTON, MASS.  
WEATHER BUREAU OFFICE  
NOVEMBER 20, 1914



Departure of the Mean Temperature from the Normal, October, 1914.





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, District Forecaster and Section Director.

Vol. XXVI. BOSTON, MASS., OCTOBER, 1914. No. 10.

## GENERAL SUMMARY.

The conditions that prevailed through the month presented much the same characteristics as in September, there being a marked absence of rainfall in a large portion of the section, an average temperature higher than usual, and an abundance of sunshine. The average temperature, although not equalling that of October, 1913, has been exceeded but twice during the past 26 years. The maximum temperatures during the month were not unusual, the minimum, however, were much higher than usual until the last week, when they were lower than normal, and at some stations the lowest of record for October for a considerable time. The greater portion of the rainfall occurred from the 16th to the 20th, when copious amounts fell throughout the section. Previous to the 15th there was practically no rain in the central and southern portion of the section and only small amounts in Maine. After the 20th no rain fell, except small amounts near the close of the month. Several inches of snow fell on the 27th in portions of the northern states and flurries in the remainder of the section.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 15 stations reporting, 30.09 inches, was 0.05 inch above the normal for the month. The highest monthly mean was 30.12 inches, at Northfield, Vt.; the lowest, 30.05 inches, at Eastport, Me. The highest recorded was 30.66 inches, at Portland, Me., Concord, N. H., and Northfield, Vt., on the 14th; the lowest, 29.56 inches, at Eastport, Me., on the 27th. The monthly range for the section was 1.10 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 1 stations, was 52.6°, which was 1.7° below the mean of October, 1913. The mean departure from the normal for 64 stations having ten or more years' record, was +3.8°. The average October temperature in other years since 1888, as compared with that of the present year, has been higher in only two years and lower in 24 years. The highest October average during this time was 54.3°, in 1913; the lowest, 44.2°, in 1888. The average temperature of the several states of the section, was as follows: Maine, 49.3°; New Hampshire, 51.3°; Vermont, 49.9°; Massachusetts, 55.0°; Rhode Island, 54.9°; Connecticut, 55.0°. The departures from the normal were as follows: Maine, +3.2°; New Hampshire, +4.1°; Vermont, +4.0°; Massachusetts, +4.3°; Rhode Island, +2.3°; Connecticut, +4.1°. The highest monthly mean was 58.3°, at Westboro, Mass.; the lowest, 43.6°, at Van Buren, Me. The highest temperature recorded was 87°, at Durham, N. H., on the 5th; the lowest, 8°, at Presque Isle, Me., on the 28th. The range for the section was 79°. The greatest local monthly range was 72°, at Presque Isle, Me.; the least, 36°, at Block Island, R. I. The greatest daily range was 54°, at Norfolk, Mass., on the 3d.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 15 stations reporting, was 77 per cent, which was 2 per cent below the normal for the month. The highest monthly average was 84 per cent, at Con-

cord, N. H., Northfield, Vt., and Nantucket, Mass.; the lowest, 71 per cent, at Portland, Me., Fall River, Mass., and Hartford, Conn.

## PRECIPITATION.

The average for the section, 84 stations reporting, was 2.21 inches, which was 1.48 inches below the average for October, 1913, and also the smallest October rainfall since 1910. As compared with other years since 1888, the October rainfall has been less in 6 years, and greater in 20 years than in the present year. The greatest for any October in this time was 7.34 inches, in 1890; the least, 1.10 inches, in 1897. The rainfall was below the normal in all of the states, although the deficiency was somewhat less in the southwestern and northeastern portions than in the remainder of the section. For the section as a whole, the deficiency, as determined from the records of 68 stations having ten or more years' record, was 1.37 inches. The average rainfall for the several states was as follows: Maine, 2.36 inches; New Hampshire, 1.30; Vermont, 1.45; Massachusetts, 1.83; Rhode Island, 3.66; Connecticut, 3.36. The departures from the normal were as follows: Maine, -0.99 inches; New Hampshire, -1.98; Vermont, -1.17; Massachusetts, -2.16; Rhode Island, -0.78; Connecticut, -0.70. The greatest monthly amount was 4.90 inches, at Bridgeport, Conn.; the least, 0.89 inch, at St. Johnsbury, Vt. The greatest amount in 24 hours was 3.27 inches, at Bridgeport, Conn., on the 16th. The average number of days with .01 inch or more of precipitation was 5, 4 less than the usual number for the month.

## WIND.

The prevailing direction of the wind was from the southwest; the normal direction for the month, as determined from the records of the past 27 years, is from the northwest. The average monthly wind movement for the section, 15 stations reporting, was 6,492 miles. The average hourly velocity was 9.3 miles, which was 1.1 miles below the normal for the month. The greatest monthly wind movement was 11,989 miles, at Block Island, R. I.; the least, 3,288 miles, at Concord, N. H. The highest velocity recorded was 53 miles per hour from the northwest, at Block Island, R. I., on the 30th, which was lower than the usual October maximum velocity.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 14; partly cloudy, 8; cloudy, 9. The normal for month is 12 clear, 8 partly cloudy, and 11 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having selfrecording instruments, was 54, which was 1 per cent above the normal for the month. Since the beginning of sunshine records in 1894, the greatest amount of sunshine in any October was 69 per cent in 1905; the least, 29 per cent, in 1913. The greatest percentage of possible sunshine at any station was 75, at Providence, R. I.; the least, 41, at Burlington, Vt.

## DATES OF MISCELLANEOUS PHENOMENA.

*Auroras*.—Eastport, Me., 20, 28; Bethlehem, N. H., 20, 27; Durham, Hanover and Newton, N. H., 27; Cavendish, Vt., 28; Blue Hill, Mass., 27, 28.

*Halos, Solar*.—Northfield, Vt., 6, 13, 14, 24, 25; Boston, Mass., 14, 31; New Haven, Conn., 4, 13, 26.

*Halos, Lunar*.—New Haven, Conn., 4.

*Thunderstorms* (dates and number of observers reporting on each)—Maine: 11th, 21st, 27th, 1; 30th, 3. New Hampshire: 29th, 30th, 1. Vermont: 10th, 1. Massachusetts: 19th, 11; 27th, 29th, 1; 30th, 4. Rhode Island: 17th, 31st, 1; 19th, 5. Connecticut: 19th, 12; 27th, 1; 29th, 2.



## Climatological Data for October, 1914.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				No. of days—				Observer.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.		Cloudy.	Prevailing direction of wind.
Maine.																				
Bar Harbor §	Hancock	20	28																	William Miller.
Cornish	York	778	59	52.5	+5.0	84	4	16	28	48	1.17	-3.02	0.40	T.	4	14	7	10	w.	T. H. West.
Eastport	Washington	53	42	49.2	+2.6	76	3	24	28	28	2.56	-1.29	0.83	T.	9	11	10	10	nw.	U. S. Weather Bureau.
Fairfield	Somerset	90	29	50.6	+3.5	78	5	24	14	41	1.62	-0.99	1.52	0	2	10			sw.	E. F. Parker.
Farmington	Franklin	450	17	49.5	+1.9	78	3†	20	28	38	2.28	-0.83	0.93	1.0	5	13	10	8	sw.	State Normal School.
Gardiner §	Kennebec	163	22	50.2	+1.0	79	4	18	28	43	1.92	-2.05	0.68	0	10	16	1	14	sw.	Samuel D. Soule.
Greenville	Piscataquis	1,140	10	46.6		76	4	16	28	42	3.07	+0.75	0.80	1.5	10				sw.	U. S. Weather Bureau.
Houlton	Aroostook	362	12	46.9		78	5	15	28	46	2.21	-0.47	0.75	3.0	5	10	11	10	nw.	Bangor & Aroostook RR
Lewiston	Androscoggin	185	40	51.4	+4.2	80	4†	22	28	40	1.61	-1.54	0.66	0	5	13	9	9	nw.	Union Water Power Co.
Madison §	Somerset	257	11	47.4		78	4†	20	28	40	3.77	+0.01	2.05	0	9	17	5	9	ne.	William Jardine.
Millinocket	Penobscot	386	11	47.9		79	5	20	28	39	3.16	-0.09	0.68	2.4	13	13	5	13	w.	Great Northern Paper Co.
North Bridgton	Cumberland	450	21	52.8	+3.7	85	5	18	28	45	1.63	-1.58	0.60	T.	6	11	14	6	sw.	G. E. Chadbourne.
Orono §	Penobscot	129	45	50.8	+4.6	78	4†	19	28	42	3.33	-0.65	0.81	0	8	23	4	4	nw.	Department of Physics.
Patten	do	550	12	45.4†		84†	3				1.98		1.40	3.0	6	9†	8†	10	sw.	Bangor & Aroostook RR
Portland	Cumberland	99	43	51.2	+2.1	81	5	22	28	38	2.05	-1.61	1.06	T.	5	14	8	9	sw.	U. S. Weather Bureau.
Presque Isle*	Aroostook			44.2		80	3	8	28	40	2.75		0.60	6.0	9	14	9	9	w.	E. M. Libby.
Rumford §	Oxford	505	21	49.9	+3.2	76	5	21	28	33	1.92	-0.97	0.97	0.2	4	18	8	5	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	9	43.6		79	3	12	28	43	3.43		1.24	3.0	10	13	2	16	nw.	J. M. Thomas.
Winslow	Kennebec	90	19	51.4	+3.7	80	4†	20	14	37	2.49	-0.50	1.90	T.	5	17	4	10	s.	Hollingsworth & Whitney.
New Hampshire.																				
Alstead Center	Cheshire	1,120	10	51.4	+3.1	74	3†	23	28	29	2.25	-0.70	1.29	T.	6	20	6	5	sw.	Frank Dewing.
Benton	Grafton		5	47.6		76	4†	16	27	33	1.15		0.58	T.	3	20	0	11	nw.	State Sanatorium.
Bethlehem	do	1,470	22	49.8	+3.6	76	10	18	28	36	1.11	-1.99	0.43	0.5	7	17	4	10	sw.	Benjamin Tucker.
Concord	Merrimac	350	54	51.2	+2.5	81	4	21	28	40	1.12	-2.12	0.54	0	6	8	9	14	nw.	U. S. Weather Bureau.
Durham §	Stafford	88	19	53.6	+4.5	87	5	17	28	46	1.32	-2.44	0.62	T.	6	15	9	7	sw.	Agr. Exp. Station.
Franklin	Merrimac	440	15	52.5	+4.7	84	5	17	28	45	1.27	-1.61	0.83	0	5	11	13	7	nw.	Dr. C. P. Webster.
Grafton	Grafton	863	28	49.8	+3.1	78	4†	14	28	45	1.16	-1.86	0.55	0	4	18	6	7	nw.	P. R. Kimball.
Hanover	do	603	80	51.8	+5.4	83	9	17	28	48	1.17	-1.41	0.52	T.	4	11	9	11	s.	Dartmouth College.
Kennebunk	Cheshire	506	29	51.7	+4.1	80	11	14	28	49	1.41	-1.94	0.70	T.	4	15	10	6	nw.	Samuel Wadsworth.
Nashua §	Hillsboro	125	29	54.7	+5.8	85	3	20	28	50	1.03	-2.62	0.72	T.	4	11	10	10	sw.	C. B. Stevens.
Newton	Rockingham		26	51.0	+2.6	80	3	16	28	44	1.00	-3.26	0.58	T.	5	14	13	4	nw.	W. C. Gale.
Plymouth	Grafton	500	26	50.1	+5.4	76	5	19	28	43	1.61	-1.78	0.68	0	5	18	2	11	w.	Hattie G. Trow.
Vermont.																				
Bloomfield	Essex		7	48.7		77	4†	14	28	42	1.12		0.37	1.5	10	13	1	17	s.	Lyman Falls Power Co.
Burlington	Chittenden	404	6	50.2	+3.3	76	5	22	27	35	1.10	-1.06	0.56	0.5	8	18	8	15	s.	U. S. Weather Bureau.
Cavendish	Windor	910	11	50.6		78	4	16	28	46	1.60		1.12	0	3	13	7	11	n.	Colonial Power Co.
Chelsea	Orange	840	19	48.6	+5.4	78	9	14	28	45	1.20	-0.63	1.14	T.	3	11	4	16	n.	W. F. Dewey.
Cornwall	Addison	517	20	52.9	+3.2	78	5	20	28	35	1.47	-0.79	1.00	1.0	1	16	7	8	n.	C. H. Lane.
Enosburg Falls	Franklin	601	22	50.6	+3.3	80	4	21	28	44	2.34	-0.47	0.73	T.	9	15	7	9	w.	L. H. Pomeroy.
Hyde Park	Lamoille	576	2	50.5		81	4	18	28	47	1.52		0.86	0	10	10	8	13	w.	A. V. Wiswell.
Manchester	Bennington	980	15											0	10	10	8	13	w.	N. M. Canfield.
Northfield	Washington	876	27	47.9	+4.3	77	4†	17	28†	44	1.00	-1.48	0.65	0.1	7	7	8	16	s.	U. S. Weather Bureau.
Somerset*	Windham	2,096	2	46.1		77	4†	14	27	39	2.82		1.07	0	7	7	18	6	nw.	Power Construction Co.
St. Johnsbury	Caledonia	711	21	51.0	+4.6	78	4†	16	28	42	0.89	-1.13	0.43	0	8	12	8	11	nw.	Fairbanks Museum.
Wells	Rutland	750	21	50.2	+2.2	74	10†	18	28	27	1.34	-1.21	0.54	0	5	8	11	12	s.	E. R. Pember.
Woodstock*	Windor	700	22	51.9	+6.1	77	10	19	28	42	0.97	-1.57	0.46	0	3	11	6	14	.....	John S. Eaton.
Massachusetts.																				
Amherst §	Hampshire	222	25	54.4	+5.4	85	3	22	28	51	2.09	-1.66	0.81	T.	5	10	8	13	n.	Agr. Exp. Station.
Blue Hill	Norfolk	640	30	54.1	+4.6	78	3†	23	28	29	2.03	-2.68	0.89	T.	5	14	7	10	sw.	Blue Hill Observatory.
Boston	Suffolk	124	44	57.0	+4.7	83	3	29	28	31	1.54	-2.32	1.21	T.	5	15	7	9	sw.	U. S. Weather Bureau.
Chestnut Hill §	do	124	35	56.4	+5.7	83	11	22	28	38	1.71	-2.49	0.90	0	7	27	0	4	.....	Met. Water Board.
Clinton §	Worcester	370	18	53.9		80	3	25	27	35	1.65		1.32	0	5				sw.	Do.
Concord §	Middlesex	139	24	52.6	+3.2	82	3	20	28	48	1.73	-1.72	0.89	T.	5	12	11	8	sw.	Fred A. Tower.
Fall River	Bristol	200	48	56.0	+2.8	77	10	30	28	25	3.31	-1.42	1.50	0	5	10	19	2	sw.	C. V. S. Remington.
Fitchburg §	Worcester	550	31	54.8	+5.7	85	4	22	28	37	1.62	-2.36	0.76	T.	4	20	8	3	w.	Dr. A. P. Mason.
Frammingham §	Middlesex	160	34	55.0	+4.8	81	3	21	28	44	1.56	-2.79	1.27	0	5				sw.	Met. Water Board.
Hyannis**	Barnstable	31	23	55.8	+1.5	72	9†	3	28	21	2.35	-1.36	1.76	0	8	19	9	3	sw.	C. F. Sleeper.
Lawrence §	Essex	51	30	53.9	+3.9	82	3	22	28	44	1.19	-2.66	0.80	0	5	11	17	3	s.	Essex Company.
Lowell §	Middlesex	100	29	56.1	+6.2	82	3†	22	28	42	1.17	-2.50	0.94	0	5				sw.	Props. Locks & Canals.
Middleboro §	Plymouth	53	28	52.9	+3.1	80	3	16	28	45	2.22	-2.32	0.96	T.	4	8	14	9	sw.	A. R. Gurney.
Nantucket	Nantucket	47	28	56.2	+1.7	74	4	33	28	24	2.15	-1.24	1.16	0	7	7	16	8	sw.	U. S. Weather Bureau.
New Bedford	Bristol	88	102																sw.	City Engineer.
Plymouth	Norfolk	244	11	53.4		82	3†	13	28	54	1.79		1.28	T.	4	21	4	6	w.	Ruby H. Martyn.
Provincetown	Barnstable		29	53.2		75	11	23	28	26	2.06		1.26	T.	5	21	6	4	w.	L. B. Knapp.
Rockport §	Essex	40	27	55.7	+3.1	72	3†	30	28	20	1.46	-2.70	0.66	0	3	18	5	9	sw.	Gideon Bowley.
Rutland §	Worcester	25	12	54.8		77	21	23	28	28	1.43		0.95	0	5	10	11	10	sw.	C. F. P. Bearse.
Springfield	Hampden	1,160	12	52.6		79	3	20	27	33	1.73		0.95	T.	7	18	7	6	sw.	State Sanatorium.
Turners Falls §	Franklin	199	1	57.0		86	3	26	28	53	2.46		1.54	T.	5	15	10	6	sw.	U. S. Army.
Westboro	Worcester	200	23	53.6	+3.7	78	5†	25	28	39	2.00	-0.54	1.10	0	5	14	8	9	.....	Turners Falls Co.
Williamstown §	Berkshire	298	40	58.3	+7.1	81	3	20	28	40	1.65	-2.52	1.45	T.	4				sw.	G. S. Newcomb.
Worcester	Worcester	711	33	52.8	+1.7	75	4†	28	28	37	1.72	-1.42								



## Continued on page 80

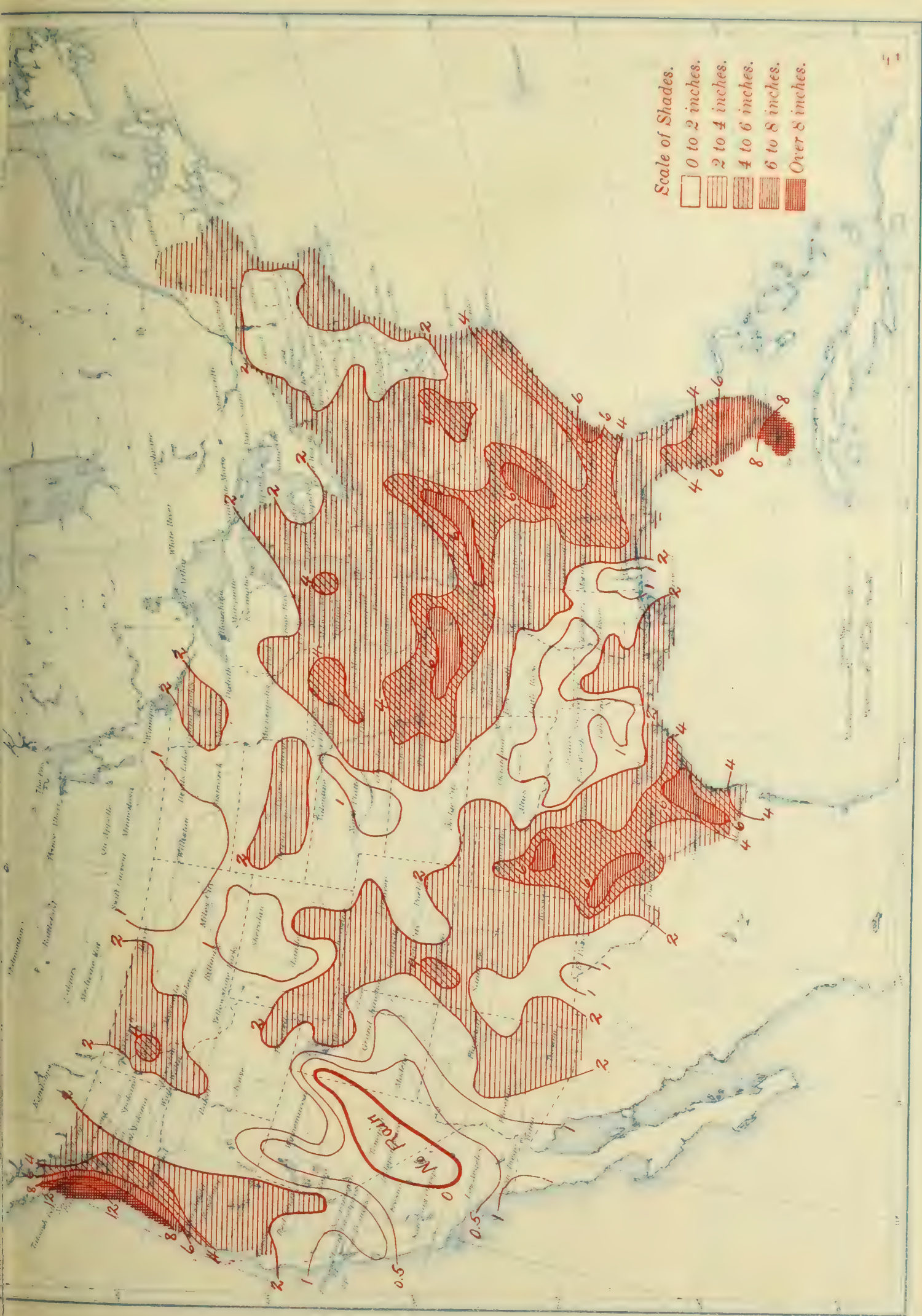
		Day of month.																															Total.	
Stations.	Watershed.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Maine.																																		
Ashland	St. John										.18	.48	.39	.04			.05		.48	.04	.56			.03					.27	T		.28	2.50	
Bar Harbor	Coast																																	
Cambridge	Kennebec																																	
Cornish	Saco										.75						.44		.42		1.05													
Danforth	Penobscot										T.						T.		.40		.31							.05	.30		.07		3.08	
Eastport***	Coast										*	.65					.23		.10		1.04												.28	1.17
Fustis	Kennebec					T.					T.	.08					.10		.73	.56		.52	.01	T.				.85		.35		.24	2.84	
Fairfield	do										.90	.02	T.		.01		.10		.20	.19	.20	.56	.65	.01				.33		.22		.56	2.56	
Farmington	do																				1.52													
Gardiner	do																T.	T.	.50	T.	.93	.10											.50	1.70
Greenville***	do										.02		.02				.05	.59	.02	.78	.05							.03	.25		.30		2.22	
Houlton	St. John										T.	.56	.08	.05	.02		.51	.05	.31	T.	.80	.10											.06	1.92
Howe Brook	Penobscot											.46						.40			.75								.16		.18		3.07	
Lewiston	Androscoggin					.08									.12			.06	.04	.25	.15								.15		.45		2.21	
Madison	Kennebec										.03	.08						.01	.45		.66								.12		.18		1.60	
Millinocket	Penobscot										.27	.20					.25	.11	.49		2.05								.39		.10		1.61	
North Bridgton	Saco										.01	.01	T.				.33	.03	.42	.07	.68		.08					.20		.49	.07		3.77	
Quossec	Androscoggin																	T.	.37		.55							.04	.32	.03	.30	.39	3.16	
Rono	Penobscot																	.50	.70		1.10								.09		.60		1.63	
Watson	do										.37							.81	.12	.18	.76	.19						.40		.30		.10	2.80	
Portland***	Coast										.08	.06						T.			.06	.08							.60	.30			3.33	
Presque Isle	St. John																	.74			1.06								.30		1.40		1.98	
Sumford	Androscoggin					.05					.50	.30	T.	.10			.15	.40	T.	.60	T.							.01	.23		.01		2.05	
Van Buren	St. John										T.							.37	T.	.97							.05		.60		T.		2.75	
Vinslow	Kennebec					.04					T.	1.24	.60	T.			.09	.06	.33	.38	.06								.30		.33		3.43	
																	.15		*	1.90								.34		.10		.33	2.49	
New Hampshire.																																		
Alstead Center	Connecticut																																	
Amton	do																T.	.06	.71	.02	1.29													
Bethlehem	do																	.04			.58								.06		.11		2.25	
Brookline	Merrimack																T.	.06	.43	.01	.17	.19									.53		1.15	
Concord***	do																	.85	.25		.10								.08		.17		1.11	
Durham	do											.10					T.	.07	.47	T.	.12										.15		1.35	
Franklin	do											.13						.02	.62	T.	.36										.31	.05	1.12	
Ratton	do																	T.	.83	.01	.21	.02							.09	T.	.10		1.32	
Sanover	Connecticut																	T.	.55		.50										.20		1.27	
Seene	do	T.	T.								T.	T.						T.	.51	.01	.52										.06	.05	1.16	
Shushua	Merrimack																T.	.20	.70		.46							T.	T.	T.	.13	T.	1.17	
Tewton	do																	.18	.72	.01	.12											.05	1.41	
Wymouth	do											T.						.13	.58	T.	.06								T.	.10		.13	1.03	
																		.68		.68	.06									.15	.04		1.61	
Vermont.																																		
Boonfield	Connecticut											.03						.25	.37	.01	.05	.03												
Burlington***	Champlain	T.								T.	T.						.13	.07	.54		.03									.05	T.	.21	.07	1.12
Avondish	Connecticut																	T.	1.12		.22	T.							.06	.03	T.		.17	1.10
Belsea	do																		.64	.44												.26		1.60
Brownwall	Champlain																	T.	1.01	.00		.10										.12	1.20	
Bushburg Falls	do										.06		.17					.73	.48		.15	.08								.10		.15	1.47	
Cady Park	Hudson																	.10	.11	.86	T.	.05							.20	T.	.29		2.34	
Chester	Champlain																															.10	1.52	
Cortfieldfield***	Connecticut												.06	T.					.04	.61		.14												
Cumersert	do																	.20	.11	.92		1.07							.02	.01	.12		1.00	
Johnbury	Champlain	T.											.02					.01	.03	.43	T.	.32	.02						.30		.15	.07	2.82	
Ermon	Connecticut																	.07	1.24	.16	.08											.05	.01	0.89
Ells	Champlain																	.07	.54		.49											.14		1.69
Goodstock	Connecticut																	.07	.54		.49											.18		1.34
Massachusetts.																																		
Mherst	Connecticut																		.46	.40												.11		0.97
Shland	Merrimack										T.							.64	.81	T.	.42													
Wickers Bridge	do																T.		1.31		.14										.17	.05	2.09	
Widford	do																.45		.80		.17										.14		.01	1.60
Wue Hill	Coast																	.40	.66		.17										.12		.30	1.84
Wston	do																	.43	.89		.49										.13		.24	1.60
Wockton	Coast																	T.	.57	.76		.03									.20		.02	2.03
Wrestnut Hill	do																	.41	1.10	.02	.13	T.	.03								.16		.02	1.54
Winton	Merrimack																	.03	.90	.40	.05	.10									.29		.18	1.98
Wncord	do																	*	1.32		.21											.05		1.71
Wll River	Coast																	.40	.86		.23										.04		.08	1.65
Wchburg	Merrimack																	1.50	1.15		.26										.12		.12	1.73
Wamingham	do																	.56	.76		.17										.15	.25		3.31
Wverhill	do																	*	1.27		.19												.13	1.62
Wngham	Coast																	.08	.66	T.	.22	T.								.09		.01	1.56	
Wannis	do																	.46	1.04		.07										.05		.09	1.10
Werson	Merrimack			.02		.02						.04						*	1.76		.07											.22		



## Daily Temperatures for October, 1914.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean
Maine.																																
Bar Harbor	Maximum	72	71	81	84	82	64	63	79	73	71	77	77	61	60	72	66	69	59	72	80	71	62	60	59	67	48	52	60	55	57	67
	Minimum	32	35	33	41	30	41	28	43	58	53	54	46	33	25	37	53	49	52	44	41	37	43	27	36	23	32	28	16	29	36	37
Cornish	Maximum	64	65	76	64	74	55	53	63	54	58	62	70	46	49	58	58	58	52	46	64	57	34	54	44	50	49	45	54	43	47	56
	Minimum	37	47	48	50	50	40	35	48	50	62	56	45	35	35	41	50	50	50	42	38	45	39	39	34	42	25	24	41	43	36	42
Eastport	Maximum	59	66	73	76	75	60	63	60	56	59	65	60	45	56	55	57	52	62	54	49	70	66	50	53	48	54	47	39	48	45	38
	Minimum	38	43	43	49	10	32	21	44	51	50	55	41	32	22	25	46	43	47	47	35	39	36	30	30	27	46	44	16	39	31	36
Greenville	Maximum	64	70	78	76	79	72	60	66	60	60	67	64	59	55	58	62	55	65	56	51	71	54	55	52	49	46	44	36	51	44	48
	Minimum	30	45	50	49	47	35	21	48	41	53	58	49	34	21	26	48	39	36	35	41	27	36	25	52	55	55	59	65	54	55	58
Millinocket	Maximum	66	69	77	78	76	78	60	68	69	64	70	69	66	53	60	61	62	63	62	51	71	72	63	54	52	55	55	59	65	54	63
	Minimum	26	31	39	42	39	36	21	42	53	52	58	49	33	21	24	50	62	62	63	62	37	16	49	24	39	25	29	19	30	39	38
Orono	Maximum	67	65	76	72	81	66	55	66	61	64	70	72	49	52	58	62	59	53	55	77	66	49	58	48	56	51	50	53	54	50	60
	Minimum	42	44	44	53	47	44	56	45	52	53	58	46	36	33	44	54	42	42	41	29	40	34	39	32	39	25	22	36	41	41	38
Portland	Maximum	60	60	80	70	78	53	63	58	52	62	60	58	62	54	64	60	50	58	50	48	55	50	52	48	50	52	44	44	48	48	58
	Minimum	25	30	40	40	40	47	26	42	32	45	40	36	35	26	18	34	40	29	49	33	33	38	28	21	35	20	30	32	32	32	32
Presque Isle	Maximum	59	68	75	74	76	60	62	67	67	64	72	65	53	55	56	62	57	65	57	58	73	61	54	56	48	56	42	44	50	49	54
	Minimum	39	43	42	49	45	39	32	46	51	55	55	46	33	27	31	51	52	51	44	44	42	40	29	34	28	40	29	21	32	39	36
Rumford	Maximum	58	69	79	71	69	59	58	59	56	56	66	63	46	52	59	60	56	58	54	64	58	44	46	44	48	46	30	35	40	39	41
	Minimum	27	30	36	46	47	26	20	44	30	44	54	46	29	22	29	39	28	48	38	43	35	28	25	22	26	25	12	30	27	32	32
New Hampshire.																																
Alstead Center	Maximum	57	68	74	74	75	65	56	68	74	70	74	66	57	52	64	60	61	63	57	62	72	66	52	51	49	55	51	45	50	46	47
	Minimum	46	41	48	45	51	52	36	41	52	51	60	48	37	26	41	55	52	52	50	46	46	49	26	37	30	39	26	23	32	38	42
Bethlehem	Maximum	53	64	70	75	72	60	61	65	71	76	74	71	67	58	53	61	59	67	59	58	71	63	55	50	49	54	48	42	51	44	40
	Minimum	39	35	38	41	45	15	29	43	51	55	56	56	51	22	41	50	54	48	44	45	41	44	23	36	25	33	28	38	35	28	49
Concord	Maximum	62	72	76	81	79	59	59	74	79	76	76	67	57	55	68	65	57	65	55	65	78	64	56	57	53	60	44	49	48	49	49
	Minimum	42	35	36	41	45	38	31	39	51	55	56	48	32	28	43	55	53	50	45	44	39	40	29	35	26	40	23	21	31	35	33
Franklin	Maximum	65	76	80	84	82	65	61	77	82	74	78	70	62	59	68	67	63	67	60	67	77	66	59	58	56	60	57	53	55	48	50
	Minimum	40	34	36	39	42	49	31	38	42	55	58	51	37	26	34	57	51	49	49	45	40	48	26	33	24	34	28	17	28	36	34
Hanover	Maximum	59	75	80	82	79	67	61	74	83	73	79	67	55	57	64	64	61	66	59	68	77	65	58	53	54	58	46	49	49	47	48
	Minimum	46	34	37	34	41	44	28	39	51	59	63	50	37	22	40	58	53	52	50	48	39	41	26	37	23	32	26	17	37	38	34
Nashua	Maximum	69	75	85	84	83	70	63	81	83	79	78	74	58	59	73	65	60	71	66	98	80	70	58	63	58	64	56	63	57	52	54
	Minimum	45	35	35	30	46	50	31	39	48	60	53	60	42	29	44	58	55	49	52	46	39	62	59	39	29	35	32	20	30	35	41
Plymouth	Maximum	61	68	74	75	76	64	61	72	74	67	76	70	54	54	62	61	62	66	60	67	72	64	53	56	50	57	52	78	50	46	45
	Minimum	34	32	31	35	39	46	29	40	51	55	53	49	35	20	35	54	52	53	47	45	41	51	23	28	21	34	28	19	29	38	34
Vermont.																																
Burlington	Maximum	57	66	73	76	76	54	63	66	76	73	74	60	44	55	60	60	62	64	54	64	72	57	56	50	50	51	30	47	49	49	59
	Minimum	40	34	38	43	52	37	33	53	59	63	59	42	29	27	44	52	52	50	46	46	51	39	30	34	30	30	22	24	42	47	44
Enosburg Falls	Maximum	55	68	74	80	76	60	66	66	76	77	75	66	47	62	55	60	63	71	60	65	74	62	73	64	52	50	32	45	50	46	46
	Minimum	44	30	33	36	42	36	28	47	54	62	66	46	30	22	28	52	51	48	50	45	45	38	38	30	27	32	26	21	37	33	30
Northfield	Maximum	55	63	71	77	76	60	65	71	77	74	74	61	43	54	58	62	58	63	57	65	75	62	56	54	50	52	32	45	49	45	45
	Minimum	33	30	31	33	39	32	28	42	51	58	58	43	25	19	35	54	52	49	47	42	36	30	23	27	24	32	17	17	37	36	27
St. Johnsbury	Maximum	54	72	76	78	78	73	65	66	72	74	75	74	57	56	55	61	61	71	68	60	76	72	57	62	52	52	51	15	50	48	49
	Minimum	45	35	34	36	40	42	28	43	52	60	63	46	35	21	29	50	56	52	45	47	39	47	24	34	22	32	22	16	41	38	32
Wells	Maximum	52	55	66	70	70	64	58	67	72	74	74	64	56	50	62	60	64	62	60	61	67	62	54	52	50	53	50	45	52	46	45
	Minimum	40	36	42	44	52	44	34	51	46	58	62	46	35	25	36	52	52	46	50	47	48	50	28	40	27	35	25	18	38	25	41
Massachusetts.																																
Amherst	Maximum	67	78	85	83	81	61	60	77	78	77	81	71	61	57	70	64	61	70	64	71	76	71	57	60	60	61	44	52	53	51	53
	Minimum	41	33	35	39	52	41	32	46	49	50	51	61	37	31	41	59	57	54	52	44	39	44	33	40	30	43	24	22	34	40	24
Blue Hill	Maximum	63	65	78	78	76	63	56	75	75	74	77	70	61	51	68	62	64	66	55	64	74	67	51	56	50	59	51	48	56	48	49
	Minimum	45	42	49	50	56	45	41	47	55	56	61	52	42	39	45	56	56	59													







## Day of month.

†† Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln Place, Boston, Mass.; Lake Konomoe, New London Water Works, New London, Conn.

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U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU

CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

NOVEMBER, 1914

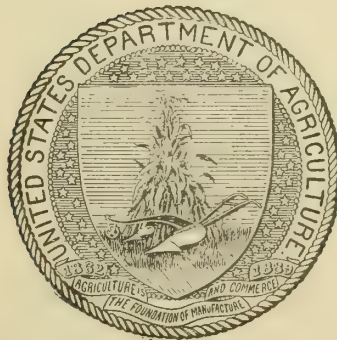
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BY

JOHN W. SMITH

DISTRICT FORECASTER AND SECTION DIRECTOR

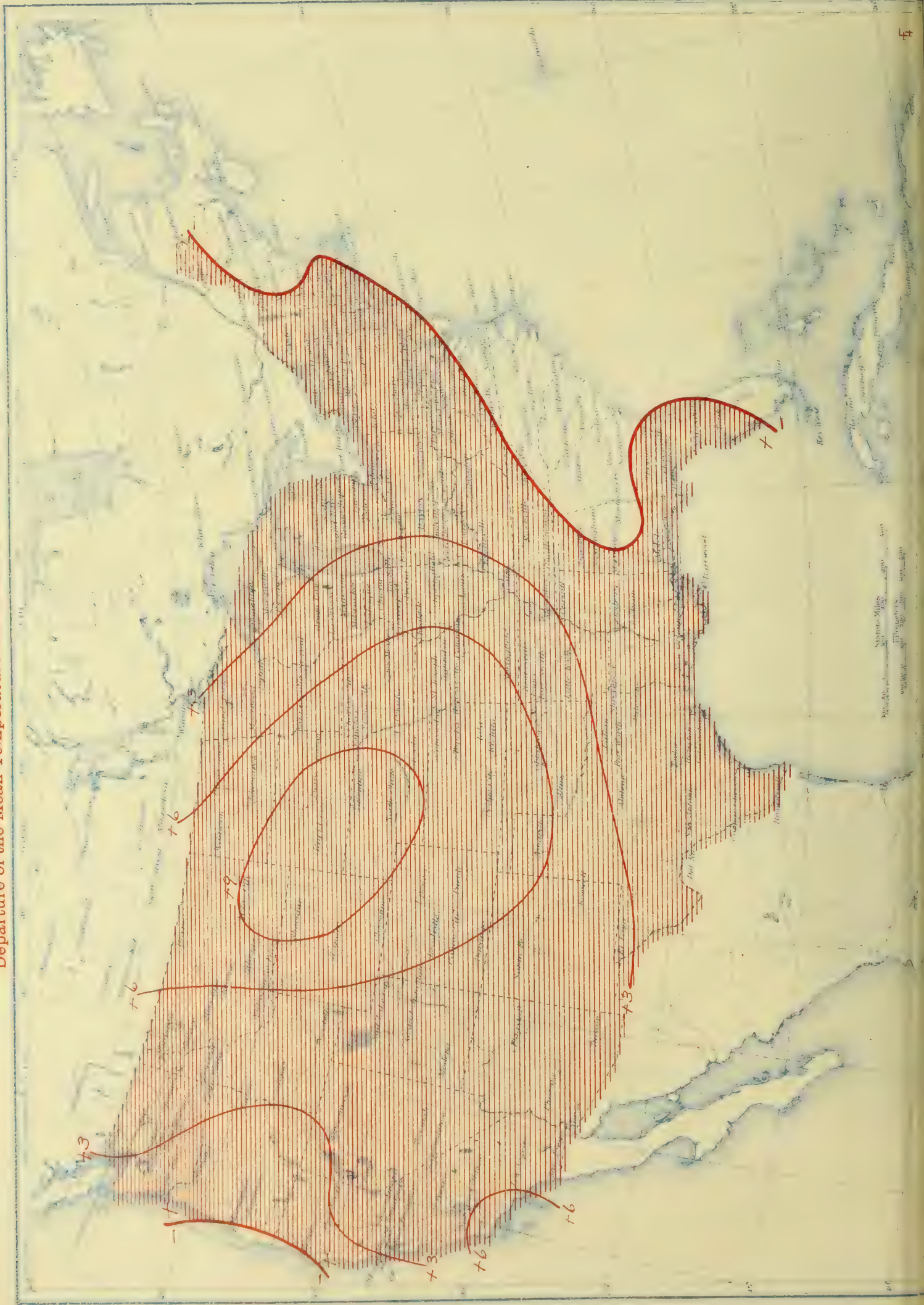
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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
DECEMBER 21, 1914



Departure of the Mean Temperature from the Normal, November, 1914





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, District Forecaster and Section Director.

VOL. XXVI. BOSTON, MASS., NOVEMBER, 1914. No. 11.

## GENERAL SUMMARY.

The month was deficient in precipitation and somewhat colder than usual. The highest temperature generally occurred on the 1st, with maxima somewhat above 70° in all of the states. The lowest temperature was on the 24th in the greater portion of the section, readings below zero occurring at scattered stations in the northern states. Precipitation occurred frequently during the first and second decades, but in small amounts, except on the 15-16th, and 19th-20th. The storm of the 19-20th was the most severe of the month, with high winds on the coast, and copious precipitation throughout the section. In the southeastern portion of Massachusetts, in Rhode Island and southern Connecticut, the precipitation of the storm was as rain; in the remainder of the section, however, there was a fairly heavy snowfall which remained on the ground nearly to the close of the month. After the 20th fair weather prevailed. Wells, springs and streams, continue unusually low.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 15 stations reporting, 30.04 inches, was normal for the month. The highest monthly mean was 30.07 inches, at Amherst, Mass., Hartford and New Haven, Conn.; the lowest, 29.98 inches, at Eastport, Me. The highest recorded was 30.78 inches, at Portland, Me., Amherst, Mass., and Hartford, Conn., on the 29th; the lowest, 29.33 inches, at Eastport, Me., on the 10th. The monthly range for the section was 1.42 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 15 stations, was 36.7°, which was 4.7° below the mean of November, 1913. The mean departure from the normal for 64 stations having ten or more years' record, was -0.7°. The average November temperature since 1888, as compared with that of the present year, has been higher in 20 years, lower in 5 years, and the same in 1 year. The highest average November temperature in this period was 42.0° in 1896; the lowest, 32.5°, in 1904. The average temperature of the several states of the section, was as follows: Maine, 32.7°; New Hampshire, 34.2°; Vermont, 32.3°; Massachusetts, 40.1; Rhode Island, 41.5°; Connecticut, 39.6°. The departures from the normal were as follows: Maine, -1.6°; New Hampshire, -1.2°; Vermont, -1.1°; Massachusetts, -0.2°; Rhode Island, -1.2°; Connecticut, 0.0°. The highest monthly mean was 44.4°, at Nantucket, Mass.; the lowest, 27.0°, at Van Buren, Me. The highest temperature recorded was 76°, at Durham, N. H., on the 1st; the lowest, -10°, at Chelsea and Woodstock, Vt., on the 24th. The range for the section was 86°. The greatest local monthly range was 78°, at Keene, N. H.; the least, 38°, at Block Island, R. I. The greatest daily range was 52°, at Patten, Me., on the 16th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 15 stations reporting, was 70 per cent, which was 7 per cent below the normal for the month. The highest monthly average was 79 per cent, at North-

field, Vt.; the lowest, 65 per cent, at Portland, Me., Fall River, Mass., and New Haven, Conn.

## PRECIPITATION.

The average for the section, as shown by the records of 85 stations, was 2.62 inches, which was 0.35 inches above the average of November, 1913. The average precipitation of November in other years since 1888, as compared with that of the present year, has been greater in 15 and less in 11 years. The greatest November average precipitation during this period was 6.38 inches, in 1897; the least, 1.17 inches, in 1908. The average precipitation for the several states was as follows: Maine, 2.49 inches; New Hampshire, 2.50; Vermont, 2.28; Massachusetts, 2.76; Rhode Island, 2.48; Connecticut, 2.97. For the section as a whole, the precipitation was 1.32 inches below the normal for the month. The deficiency for the several states was as follows: Maine, -0.89 inch; New Hampshire, -1.30; Vermont, -1.21; Massachusetts, -1.62; Rhode Island, -1.79; Connecticut, -1.31. The greatest monthly amount was 4.10 inches, at Rockport, Mass.; the least, 1.41 inches, at Burlington, Vt. The greatest amount in 24 hours was 3.00 inches, at Rockport, Mass., on the 20th. The average snowfall for the section was 6.5 inches, which was 3.9 inches greater than that of November last year, and 1.7 inches above the average for the month as determined from the records of the past 27 years. The average fall in the several states was as follows: Maine, 9.6 inches; New Hampshire, 9.6; Vermont, 14.4; Massachusetts, 2.9; Rhode Island, trace; Connecticut, 2.3. The average number of days with .01 inch or more of precipitation was 8, 1 less than the usual number for the month.

## WIND.

The prevailing direction of the wind was from the northwest, which is the normal direction for the month. The average monthly wind movement for the section, 15 stations reporting, was 8,885 miles. The average hourly velocity was 12.3 miles, which was 0.7 miles above the normal for the month, as determined from the records of the past 27 years. The greatest monthly wind movement was 16,010 miles, at Block Island, R. I.; the least, 4,271 miles, at Concord, N. H. The highest velocity recorded was 58 miles per hour from the northeast, at Block Island, R. I., on the 19th. This is lower than the usual November maximum velocity.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 11; partly cloudy, 9; cloudy, 10. The average for month is 10 clear, 8 partly cloudy, and 12 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having selfrecording instruments, was 49, which was 5 per cent above the normal for the month. Since the beginning of sunshine records in 1894, the greatest percentage of sunshine in any November was 58, in 1903; the least, 32, in 1896. The greatest percentage of possible sunshine at any station was 63, at Providence, R. I.; the least, 31, at Burlington, Vt.

## DATES OF MISCELLANEOUS PHENOMENA.

*Auroras*.—Blue Hill, Mass., 17; Hartford, Conn., 9.

*Halos, Solar*.—Cornish, Me., 19; Winslow, Me. (Parhelia), 3; Northfield, Vt., 3, 7, 24; Blue Hill, Mass., 7, 9, 18, 25; Boston, Mass., 7; Nantucket, Mass., 15; Somerset, Mass., 21.

*Halos, Lunar*.—Bethlehem, N. H., 24, 26; Concord, N. H., 24, 25; Northfield, Vt., 29; Blue Hill, Mass., 1, 22, 24, 25, 27, 29, 30; Concord, Mass., 1; Leominster, Mass., 24; Nantucket, Mass., 27, 30; Somerset, Mass., 24, 27; Block Island, R. I., 25, 27; New Haven, Conn., 1, 24, 25, 27, 29.

*Thunderstorms* (dates and number of observers reporting on each): Maine: 4th, 2; 13th, 9; 14th, 1; 15th, 1. New Hampshire: 13th, 3; 14th, 1. Vermont: 7th, 3; 8th, 1; 13th, 2. Massachusetts: 2d, 3; 8th, 3; 13th, 5; 14th, 2. Rhode Island: 2d, 6; 8th, 2. Connecticut: 2d, 2; 8th, 5.



## Climatological Data for November, 1914.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.					No. of days—			Observer.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.		Cloudy.	Prevailing direction of wind.
Maine.																				
Bar Harbor	Hancock	20	28	35.6	-3.3	62	4	11	22	35	3.15	-2.00	1.50	0.5	4	12	10	8	ne.	William Miller.
Cornish	York	778	59	34.6	-1.5	71	1	1	24	41	3.27	-0.95	1.67	10.5	9	9	12	9	w.	T. H. West.
Eastport	Washington	53	42	35.6	-1.2	58	1	12	18	33	2.78	-1.30	1.21	4.5	10	5	11	14	sw.	U. S. Weather Bureau.
Fairfield	Somerset	90	29	35.0	-0.4	66	4	8	24	42	1.58	-1.24	0.74	7.5	4	4	8	18	.....	E. F. Parker.
Farmington	Franklin	450	17	31.4	-1.7	63	1	2	23	34	3.15	-0.18	1.29	14.0	10	7	10	13	nw.	State Normal School.
Gardiner	Kennebec	163	22	33.4	-3.3	67	1	6	23	36	2.10	-1.74	0.81	10.0	11	13	4	13	sw.	Samuel D. Soule.
Greenville	Piscataquis	1,140	10	28.4	.....	59	1	2	19	33	2.10	-0.67	0.62	9.7	9	.....	.....	.....	.....	U. S. Weather Bureau.
Houlton	Aroostook	362	12	31.8	.....	55	16	4	23	40	1.50	-0.55	1.00	10.0	4	7	14	9	w.	Bangor & Aroostook RR.
Lewiston	Androscoggin	185	40	34.1	-1.6	70	1	13	23	38	2.92	-1.05	1.32	10.2	7	11	13	6	nw.	Union Water Power Co.
Madison	Somerset	257	11	30.0	.....	62	2	8	19	37	3.53	+0.62	1.78	9.5	9	19	0	11	nw.	William Jardine.
Millinocket	Penobscot	386	11	30.4	.....	58	15	5	19	34	2.74	-0.60	1.18	10.2	9	10	3	17	w.	Great Northern Paper Co.
North Bridgton	Cumberland	450	21	34.4	-2.6	73	1	3	14	43	2.99	-0.52	1.20	13.0	6	6	18	6	w.	G. E. Chadbourn.
Orono	Penobscot	129	45	38.4	.....	66	17	6	19	51	1.69	-2.18	0.70	4.0	6	12	10	8	w.	Department of Physics.
Patten	do	550	12	28.4	.....	57	16	1	23	52	2.50	.....	1.00	11.0	4	7	6	12	ne.	Bangor & Aroostook RR.
Portland	Cumberland	99	43	36.6	-1.0	72	1	14	23	34	3.17	-0.63	1.68	7.4	9	12	4	14	sw.	U. S. Weather Bureau.
Presque Isle	Aroostook	505	21	31.6	-2.5	64	1	8	19	32	2.64	-0.66	1.24	15.8	9	18	6	6	nw.	E. M. Libby.
Rumford	Oxford	510	9	27.0	.....	51	1	4	29	33	2.09	.....	0.50	9.5	11	6	8	16	w.	Charles A. Mixer.
Van Buren	Aroostook	510	9	27.0	.....	51	1	4	29	33	2.09	.....	0.50	9.5	11	6	8	16	w.	J. M. Thomas.
Winslow	Kennebec	90	19	34.3	-0.1	65	1	9	29	31	1.52	-1.63	0.88	7.0	4	9	7	14	w.	Hollingsworth & Whitney.
New Hampshire.																				
Alstead Center	Cheshire	1,120	10	34.6	-0.4	67	1	7	24	30	2.08	-2.44	0.99	8.0	7	18	8	4	sw.	Frank Dewing.
Benton	Grafton	.....	5	30.4	.....	66	1	5	17	34	3.80	.....	1.14	17.2	9	12	5	13	nw.	State Sanatorium.
Bethlehem	do	1,470	22	30.8	-1.8	66	1	1	23	36	2.39	-1.32	1.32	16.0	9	9	7	14	w.	Benjamin Tucker.
Concord	Merrimac	350	54	35.0	-1.8	73	1	11	23	44	2.27	-1.12	0.99	8.8	8	12	6	12	nw.	U. S. Weather Bureau.
Durham	Stafford	88	19	40.1	+1.1	76	1	12	24	46	2.24	-2.24	0.78	5.8	7	10	9	11	nw.	Agr. Exp. Station.
Franklin	Merrimac	440	15	34.4	-1.4	75	1	6	23	49	2.45	+0.05	1.03	9.5	11	14	7	9	nw.	Dr. C. P. Webster.
Grafton	Grafton	863	28	31.4	-2.8	69	1	6	23	46	2.38	-0.65	1.10	13.0	7	13	8	9	nw.	P. R. Kimball.
Hanover	do	603	80	32.6	-1.0	71	1	5	24	43	2.29	-0.74	0.93	10.9	13	7	9	14	n.	Dartmouth College.
Keene	Cheshire	506	29	33.8	-2.9	72	1	6	24	47	1.80	-2.12	0.70	7.0	8	10	9	11	nw.	Samuel Wadsworth.
Nashua	Hillsboro	125	29	38.6	+0.4	75	1	9	24	43	2.78	-1.20	1.40	5.0	7	8	9	13	nw.	C. B. Stevens.
Newton	Rockingham	26	26	36.4	-1.4	73	1	9	24	39	2.77	-1.40	1.60	2.0	6	9	18	3	nw.	W. C. Gale.
Plymouth	Grafton	500	26	31.8	-0.9	67	1	5	23	43	2.75	-1.17	0.94	12.5	9	11	2	17	w.	Hattie G. Trow.
Vermont.																				
Bloomfield	Essex	.....	7	30.8	.....	63	1	5	23	37	1.84	.....	0.56	16.5	15	8	4	18	s.	Lyman Falls Power Co.
Burlington	Chittenden	404	6	33.9	+0.2	65	1	7	24	31	1.41	-1.17	0.68	14.9	13	3	9	18	s.	U. S. Weather Bureau.
Cavendish	Windsor	910	11	33.4	.....	69	1	3	24	43	1.76	.....	0.98	11.8	5	4	10	16	.....	Colonial Power Co.
Chelsea	Orange	840	19	30.8	-2.4	67	1	10	24	42	2.48	-1.70	0.55	12.0	10	7	6	17	n.	W. F. Dewey.
Cornwall	Addison	517	20	34.2	-1.9	65	4	3	24	29	2.52	-0.74	0.85	12.5	12	4	8	18	s.	C. H. Lane.
Enosburg Falls	Franklin	601	22	33.4	-1.1	67	1	4	24	36	2.48	-1.27	0.60	14.5	13	6	8	16	sw.	L. H. Pomeroy.
Hyde Park	Lamoille	576	2	32.5	.....	71	1	4	24	44	2.92	.....	0.91	21.0	13	7	6	17	nw.	A. V. Wiswell.
Manchester	Benning	980	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	N. M. Canfield.
Northfield	Washington	876	27	31.5	-0.5	69	1	6	24	43	2.90	+0.30	1.08	14.7	12	4	7	19	s.	U. S. Weather Bureau.
Somerset	Windham	2,096	2	27.9	.....	61	1	4	23	40	2.94	.....	0.95	23.8	16	6	13	11	nw.	Power Construction Co.
St. Johnsbury	Caledonia	711	21	32.2	-1.1	69	1	3	23	44	2.22	-1.74	0.99	13.9	15	6	9	15	nw.	Fairbanks Museum.
Wells	Rutland	750	21	33.2	-1.7	68	4	5	24	28	1.57	-2.17	0.40	4.0	8	6	9	15	sw.	E. R. Pember.
Woodstock	Windsor	700	22	33.7	-0.1	66	1	10	24	36	2.30	-1.21	0.85	13.0	9	5	2	23	.....	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	25	37.8	-0.5	72	1	5	24	38	2.62	-1.23	0.88	5.8	7	8	8	14	sw.	Agr. Exp. Station.
Blue Hill	Norfolk	640	30	39.2	-0.5	70	1	14	24	30	3.06	-1.56	2.10	T.	7	8	12	10	w.	Blue Hill Observatory.
Boston	Suffolk	124	44	42.7	+1.5	74	1	20	24	28	2.72	-1.38	2.07	T.	6	7	11	12	w.	U. S. Weather Bureau.
Chestnut Hill	do	124	35	41.8	-0.5	73	1	15	24	34	2.94	-1.64	2.15	.....	7	25	0	5	.....	Met. Water Board.
Clinton	Worcester	370	18	38.8	.....	69	4	12	24	37	3.20	.....	1.98	7.5	10	.....	.....	.....	.....	Do.
Concord	Middlesex	139	24	37.6	-0.6	74	1	11	24	38	2.57	-0.66	1.53	3.3	8	7	15	8	sw.	Fred A. Tower.
Fall River	Bristol	200	48	41.9	-1.0	66	4	17	24	27	2.77	-1.99	1.50	.....	8	8	19	3	sw.	C. V. S. Remington.
Fitchburg	Worcester	550	31	38.0	-0.4	73	1	11	24	31	2.63	-1.76	1.02	9.0	8	17	7	6	w.	Dr. A. P. Mason.
Framingham	Middlesex	160	34	39.9	-0.8	71	1	14	24	35	2.44	-1.81	1.58	1.5	7	.....	.....	.....	.....	Met. Water Board.
Hyannis	Barnstable	31	23	43.1	-1.3	68	1	18	24	20	2.43	-2.60	1.20	.....	5	17	7	6	nw.	C. F. Sleeper.
Lawrence	Essex	51	30	38.4	-1.5	71	1	11	24	33	2.40	-1.80	1.45	2.0	8	10	17	3	sw.	Essex Company.
Lowell	Middlesex	100	29	40.3	+0.8	69	1	13	24	32	2.59	-1.42	1.53	3.0	6	.....	.....	.....	.....	Props. Locks & Canals.
Middleboro	Plymouth	53	28	39.8	-0.5	72	1	12	24	45	3.51	-1.07	2.00	.....	9	5	14	11	sw.	A. R. Gurney.
Nantucket	Nantucket	47	28	44.4	-0.8	63	1	22	24	24	2.32	-0.96	1.29	T.	8	8	14	8	w.	U. S. Weather Bureau.
New Bedford	Bristol	88	102	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	City Engineer.
Norfolk	Norfolk	244	11	38.3	.....	73	4	9	24	41	3.18	.....	1.88	T.	6	14	10	6	w.	Ruby H. Martyn.
Plymouth	Plymouth	.....	29	39.6	.....	68	5	14	24	33	3.45	.....	1.92	0.5	6	11	11	8	w.	L. B. Knapp.
Provincetown	Barnstable	40	27	43.7	-0.2	62	1	23	24	25	2.07	-1.53	0.97	.....	5	17	7	6	sw.	Gideon Bowley.
Rockport	Essex	25	12	42.0	.....	71	1	18	24	30	4.10	.....	3.00	.....	7	9	13	8	sw.	C. F. P. Bearse.
Rutland	Worcester	1,160	12	35.2	.....	68	1	9	23	36	3.03	.....	1.45	9.8	8	11	10	9	sw.	State Sanatorium.
Springfield	Hampden	199	1	41.2	.....	72	1	15	24	38	2.70	.....	1.48	9.3	6	10	15	5	nw.	U. S. Army.
Turners																				



## Day of month.

Continued on page 88



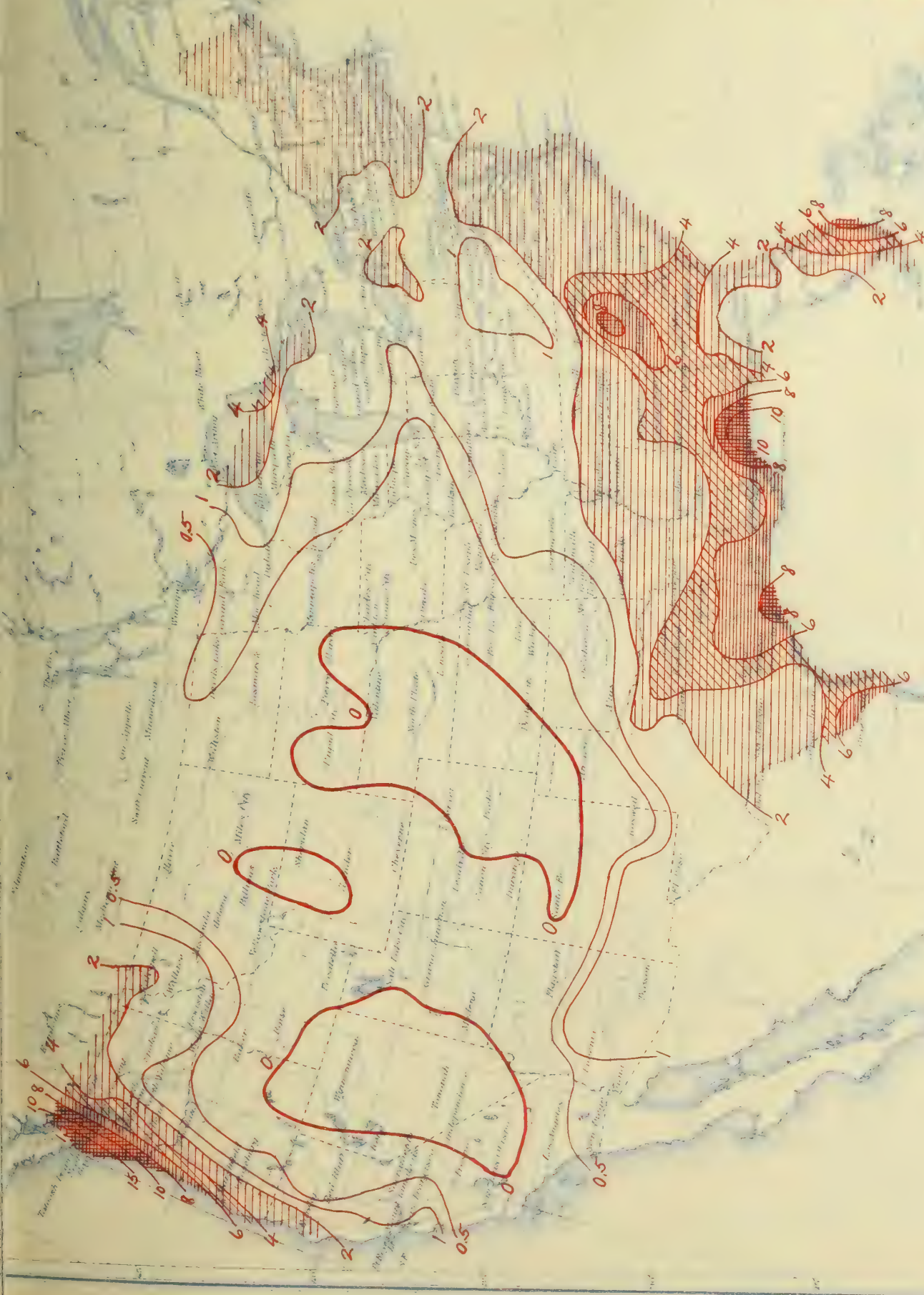
## Daily Temperatures for November, 1914.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean		
Maine.																																		
Bar Harbor	Maximum	58	54	56	62	58	55	52	50	52	46	40	46	46	50	48	40	42	38	36	44	38	29	48	36	40	50	39	50	50	46.8			
	Minimum	38	34	44	40	44	33	28	26	23	21	13	21	18	26	24	18	15	13	18	22	11	16	13	28	30	39	15	15	29	24.4			
Cornish	Maximum	71	67	57	70	62	50	50	49	48	43	34	51	35	52	34	53	46	37	31	37	42	41	38	40	47	56	56	43	51	48	48.0		
	Minimum	34	34	26	29	30	32	33	34	29	20	15	17	20	25	18	32	28	14	10	23	11	8	3	1	17	24	27	12	11	21	21.3		
Eastport	Maximum	58	57	43	55	55	43	38	52	40	31	42	40	49	46	44	56	40	26	36	45	36	39	35	35	45	48	54	26	42	51	43.6		
	Minimum	35	43	35	38	41	34	29	42	38	26	22	34	32	36	28	52	37	21	4	2	20	20	18	10	11	18	32	49	27	6	17	39.3	
Greenville	Maximum	59	53	40	44	46	39	41	42	38	26	22	34	32	36	28	52	37	21	4	2	20	20	18	10	11	18	32	29	27	6	17	20.1	
	Minimum	36	37	28	29	34	29	27	28	25	21	9	19	14	20	8	54	42	30	28	33	33	32	32	27	35	47	49	29	39	42	21.4		
Millinocket	Maximum	58	50	49	49	50	37	41	46	45	35	28	36	37	8	29	28	7	5	20	23	20	8	14	10	32	29	13	5	15	8	25	52.8	
	Minimum	29	30	33	31	34	32	34	30	29	27	14	24	17	28	50	60	41	27	38	33	37	29	33	44	52	53	36	44	44	44	44.9		
Orono	Maximum	59	62	65	58	65	63	60	50	47	45	65	54	46	51	40	57	61	51	42	41	49	46	39	47	53	59	48	63	48	46	52.2		
	Minimum	31	37	33	34	32	34	30	29	29	27	14	24	17	28	15	30	30	12	6	23	22	17	10	12	18	32	39	16	8	25	21.4		
Portland	Maximum	73	65	48	64	58	45	43	51	40	33	29	46	51	47	50	60	41	27	38	33	33	27	29	33	44	52	53	36	44	44	44.9		
	Minimum	38	43	36	39	39	37	34	40	29	21	21	32	30	35	30	53	40	28	27	35	34	30	30	22	35	40	44	28	30	40	37.3		
Presque Isle	Maximum	56	59	58	40	46	40	32	44	40	30	31	24	30	35	30	53	40	28	27	35	34	30	30	22	35	40	44	28	30	40	37.3		
	Minimum	29	43	27	23	33	28	15	20	26	19	10	22	22	25	6	19	25	3	18	22	13	8	5	11	31	22	2	2	19	18	24.2		
Rumford	Maximum	64	58	41	54	51	40	42	47	35	31	28	41	34	40	36	34	46	24	27	34	31	32	22	30	42	50	53	32	36	39	39.0		
	Minimum	32	38	36	33	39	36	34	42	37	28	17	13	20	23	25	16	34	24	10	8	25	24	17	10	18	24	30	53	17	14	18	24.2	
Van Buren	Maximum	61	49	46	35	41	37	35	41	39	30	26	32	30	29	50	48	29	28	35	35	31	29	19	33	35	41	24	29	38	35.2			
	Minimum	27	35	28	25	32	28	23	23	27	20	13	24	22	26	12	27	27	1	-2	28	14	12	11	12	7	29	19	7	-4	16	18.8		
New Hampshire.																																		
Alstead Center	Maximum	67	57	48	63	65	42	43	47	37	20	43	42	53	47	35	57	37	26	31	25	31	28	28	38	57	53	33	35	45	42.4			
	Minimum	37	42	28	37	40	34	31	36	29	19	18	31	31	31	26	35	25	13	13	21	16	13	13	7	23	38	33	20	23	31	26.8		
Bethlehem	Maximum	66	58	36	63	51	34	38	43	36	26	29	35	45	45	40	57	37	10	32	31	29	31	25	28	41	52	51	35	44	45	39.4		
	Minimum	30	36	29	30	37	30	27	33	26	14	10	26	21	17	36	20	4	10	22	19	12	1	7	15	37	26	10	16	23	21	21.7		
Concord	Maximum	73	61	51	70	55	44	44	49	37	32	40	46	58	45	48	61	36	25	31	34	31	36	28	33	46	54	54	39	44	44	45.0		
	Minimum	29	42	34	31	39	37	31	33	30	18	19	49	23	26	26	22	33	25	18	16	22	19	13	11	13	25	33	28	19	14	22	25.0	
Franklin	Maximum	75	62	52	71	59	45	46	49	41	33	41	33	41	20	24	32	20	34	27	15	11	25	7	6	14	15	30	34	21	13	20	23.4	
	Minimum	26	42	30	28	34	35	24	31	30	21	15	20	24	32	20	34	27	15	11	25	17	7	6	14	15	30	34	21	13	20	23.4		
Hanover	Maximum	71	58	46	47	53	43	43	48	34	32	39	45	48	43	37	55	37	28	32	32	31	31	27	31	46	53	54	36	46	40	43.0		
	Minimum	28	40	27	29	34	35	31	31	28	18	15	30	26	28	43	20	36	23	11	19	14	11	3	-5	20	27	29	13	11	21	21	49.6	
Nashua	Maximum	75	66	58	73	68	49	48	54	35	37	25	20	25	26	48	48	43	30	20	17	28	21	13	15	9	25	33	42	22	16	24	27.6	
	Minimum	32	41	34	34	35	31	33	39	32	25	20	25	26	41	35	45	30	31	30	30	28	24	29	43	57	50	42	35	40	41	41.7		
Plymouth	Maximum	67	60	48	65	62	41	43	45	40	30	34	41	35	45	35	50	43	31	30	30	28	24	29	43	57	50	42	35	40	41	41.7		
	Minimum	24	35	32	35	41	36	24	30	30	23	13	19	21	29	18	33	28	18	10	27	24	1	-5	9	12	25	29	19	10	15	22.2		
Vermont.																																		
Burlington	Maximum	65	56	47	64	48	40	44	46	34	30	44	38	47	36	43	54	35	23	33	30	30	32	20	30	46	55	55	32	47	51	41.3		
	Minimum	43	34	28	44	40	33	32	32	26	19	22	29	25	24	22	33	16	9	16	22	19	13	7	30	39	54	51	33	53	56	26.6		
Enosburg Falls	Maximum	67	60	40	50	48	41	40	46	36	30	49	45	46	17	46	57	38	24	34	33	30	35	27	30	42	51	54	33	53	56	42.3		
	Minimum	33	40	30	37	38	33	32	33	27	17	14	25	16	17	46	57	38	24	34	33	30	35	27	30	42	51	54	33	53	56	26.6		
Northfield	Maximum	69	57	42	63	50	37	40	45	32	27	39	38	48	38	49	36	33	25	28	29	29	33	22	35	45	58	55	34	46	44	41.1		
	Minimum	26	34	24	29	35	32	31	32	25	13	14	29	25	21	18	30	17	8	14	22	20	16	2	-6	35	35	24	14	15	22	22.2		
St. Johnsbury	Maximum	69	66	45	62	59	42	39	46	33	31	36	38	48	38	49	36	33	25	17	34	25	8	6	16	16	21	-3	20	29	33	11	10	21.1
	Minimum	25	43	32	30	35	33	31	33	30	22	12	10	12	52	45	40	58	40	30	30	26	32	20	25	37	50	30	30	40	46	41	41.1	
Wells	Maximum	62	56	46	63	52	42	42	44	30	10	10	12	52	45	40	58	40	30	30	26	32	22	20	-5	21	30	30	15	20	28	24	41.4	
	Minimum	37	40	23	41	38	33	32	38	26	16	18	30	26	28	22	30	34	6	12	22	16	22	10	-5	21	30	30	15	20	28	24	41.4	
Massachusetts.																																		
Audubon	Maximum	72	59	58	71	57	49	48	53	41	30	41	47	61	48	54	61	34	50	31	36	35	38	30	36	44	53	53	42	49	42	49	49.4	
	Minimum	31	13	34	45	41	34	36																										



Scale of Shades.

0 to 2 inches.
2 to 4 inches.
4 to 6 inches.
6 to 8 inches.
Over 8 inches.





## Day of month.

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.  
 †† Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cocatauate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.

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U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

DECEMBER, 1914

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BY  
JOHN W. SMITH  
DISTRICT FORECASTER AND SECTION DIRECTOR

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
JANUARY 18, 1915



Departure of the Mean Temperature from the Normal, December, 1914.





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, District Forecaster and Section Director.

VOL. XXVI. BOSTON, MASS., DECEMBER, 1914. No. 12.

## GENERAL SUMMARY.

The average temperature was lower than usual and the lowest for December since 1910. The precipitation was somewhat below the normal, with less than the average snowfall. During the first half of the month the temperature was generally near or somewhat above the normal, the highest temperature of the month occurring during the first three days. In the last half of the month steady cold weather prevailed, reaching minima of zero or below throughout the section. The minimum in many localities and also for the section,  $-42^{\circ}$ , was lower than any previously recorded in December. The snowfall was confined to the last half of the month, during which time light to moderate amounts fell on several dates so that the ground was generally covered. The greatest depth at anytime was generally less than 5 inches, except in some localities in northern Maine, central New Hampshire and eastern Vermont, where there was from 12 to 20 inches on the ground about the 20th of the month. The conditions during the last of the month were unusually favorable for ice harvesting.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 15 stations reporting, was 30.16 inches, and 0.11 inch above the normal for the month. The highest monthly mean was 30.18 inches, at Portland, Me., Concord, N. H., Burlington, Vt., and Amherst, Mass.; the lowest, 30.12 inches, at Eastport, Me. The highest recorded was 30.71 inches, at Northfield, Vt., on the 26th; the lowest, 29.06 inches, at Portland, Me., on the 14th. The monthly range for the section was 1.65 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 65 stations, was  $24.4^{\circ}$ , which was  $6.9^{\circ}$  below the mean for December, 1913. The mean departure from the normal for 64 stations having ten or more years' record was  $-2.1^{\circ}$ . The average December temperature since 1888, as compared with that of the present year, has been higher in 20 years and lower in 6 years. The highest December average temperature during this period was  $35.9^{\circ}$ , in 1891; the lowest,  $18.3^{\circ}$ , in 1904. The average temperature for the several states of the section, was as follows: Maine,  $19.4^{\circ}$ ; New Hampshire,  $21.9^{\circ}$ ; Vermont,  $9.8^{\circ}$ ; Massachusetts,  $28.5$ ; Rhode Island,  $30.5^{\circ}$ ; Connecticut,  $7.8^{\circ}$ . The departures from the normal were as follows: Maine,  $-1.3^{\circ}$ ; New Hampshire,  $-2.4^{\circ}$ ; Vermont,  $-1.8^{\circ}$ ; Massachusetts,  $-2.2^{\circ}$ ; Rhode Island,  $-2.9^{\circ}$ ; Connecticut,  $-2.2^{\circ}$ . The highest monthly mean was  $34.7^{\circ}$ , at Nantucket, Mass.; the lowest,  $11.5^{\circ}$ , at Van Buren, Me. The highest temperature recorded was  $67^{\circ}$ , at New London, Conn., on the 4th; the lowest,  $-42^{\circ}$ , at Van Buren, Me., on the 25th. The range for the section was  $109^{\circ}$ . The greatest local monthly range was  $93^{\circ}$ , at Cornish, Me.; the least,  $42^{\circ}$ , at Nantucket, Mass. The greatest daily range was  $47^{\circ}$ , at Bar Harbor and Cornish, Me., Bloomfield and Northfield, Vt., on the 27th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 15 stations reporting, was 74 per cent, which was 1 per cent below the normal for the month. The highest monthly average was 82 per cent, at Northfield, Vt., and Nantucket, Mass.; the lowest, 63 per cent, at Portland, Me.

## PRECIPITATION.

The average for the section, as shown by the records of 84 stations, was 3.04 inches, which was 0.20 inch below the average for December, 1913. The average precipitation in December in other years since 1888, as compared with that of the present year, has been greater in 17 years, and less in 9 years. The greatest average December precipitation during this period was 7.59 inches in 1901; the least, 1.32 inches, in 1892. The average precipitation for the several states was as follows: Maine, 1.95 inches; New Hampshire, 2.13; Vermont, 1.73; Massachusetts, 4.12; Rhode Island, 4.69; Connecticut, 3.93. For the section as a whole, the precipitation was 0.24 inch below the normal for the month. The departures from the normal for the several states were as follows: Maine,  $-1.44$  inches; New Hampshire,  $-0.80$ ; Vermont,  $-0.95$ ; Massachusetts,  $+0.64$ ; Rhode Island,  $+1.13$ ; Connecticut,  $+0.34$ . The greatest monthly amount was 6.73 inches, at Nantucket, Mass.; the least, 0.65 inch, at Bethlehem, N. H. The greatest amount in 24 hours was 2.82 inches, at Plymouth, Mass., on the 7th. The average snowfall for the section was 6.9 inches, which was 2.6 inches greater than the average of December, 1913, and 3.9 inches below the usual amount for the month, as determined from the records of the past 27 years. The average fall in the several states was as follows: Maine, 10.0 inches; New Hampshire, 10.3; Vermont, 12.3; Massachusetts, 4.3; Rhode Island, 1.1; Connecticut, 4.0. The average number of days with .01 inch or more of precipitation was 9, 1 less than the usual number for the month.

## WIND.

The prevailing direction of the wind was from the northwest, which is the normal direction for the month. The average monthly wind movement for the section, 15 stations reporting, was 8,785 miles. The average hourly velocity was 11.8 miles, which was 0.4 mile above the normal for the month, as determined from the records of the past 27 years. The greatest monthly wind movement was 16,409 miles, at Block Island, R. I.; the least, 3,895 miles, at Concord, N. H. The highest velocity recorded was 71 miles per hour from the northeast, at Block Island, R. I., on the 7th. This is about the usual December maximum velocity.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 13; partly cloudy, 7; cloudy, 11. The normal for month is 11 clear, 8 partly cloudy, and 12 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having selfrecording instruments, was 45, which was 2 per cent above the normal for the month. Since the beginning of sunshine records in 1894, the greatest percentage of sunshine in any December was 55, in 1894 and in 1896; the least, 31, in 1906. The greatest percentage of possible sunshine at any station was 58, at Portland, Me.; the least, 32, at Block Island, R. I.

## DATES OF MISCELLANEOUS PHENOMENA.

*Thunderstorms* (dates and number of observers reporting on each): Massachusetts, 19th, 1; Rhode Island, 19th, 1.

*Halos, Solar.*—Cornish, Me., 9, 24, 25; Burlington, Vt., 4, 7, 8, 9, 23; Enosburg Falls, Vt., 24; Northfield, Vt., 6, 8, 9, 23; Blue Hill, Mass., 1, 3, 25, 28; Boston, 24; New Haven, Conn., 25, 31.

*Halos, Lunar.*—Bethlehem, N. H., 28; Hanover, N. H., 28; Burlington, Vt., 4, 5, 28; Enosburg Falls, Vt., 7, 8, 9, 28; Northfield, Vt., 5, 7, 28; Blue Hill, Mass., 3, 4, 5, 23, 28, 29, 31; Boston and Concord, Mass., 28, 31; Nantucket, Mass., 4, 5, 28, 31; Rutland, Mass., 28; Block Island, R. I., 4, 28; Hartford, Conn., 1, 3, 28, 31; New Haven, Conn., 1, 4, 28, 31.



## Climatological Data for December, 1914.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.					No. of days—			Prevailing direction of wind.	Observer.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.			Cloudy.
Maine.																				
Bar Harbor	Hancock	20	28	23.4	-3.4	58	1	-12	26†	47	1.95	-2.74	0.70	5.0	5	16	2	13	nw.	William Miller.
Cornish	York	778	59	23.0	-2.2	62	3	-31	26	47	2.54	-1.09	1.42	8.5	7	8	11	12	w.	T. H. West.
Eastport	Washington	53	42	23.6	-1.7	53	1	-11	26	39	1.95	-2.02	0.61	9.0	8	11	6	11	w.	U. S. Weather Bureau.
Fairfield	Somerset	90	29	19.8	-1.9	58	14	-26	26	34	1.14	-1.76	0.41	5.5	6	18	8	5	.....	E. F. Parker.
Farmington	Franklin	450	17	19.8	+2.3	50	3	-18	27	34	2.16	-1.23	1.35	12.0	6	15	7	9	nw.	State Normal School.
Gardiner	Kennebec	163	22	20.4	-3.3	54	3	-26	26	39	2.24	-1.46	0.87	5.5	9	16	3	12	nw.	Samuel D. Soule.
Greenville	Piscataquis	1,140	10	15.8	.....	53	1	-19	27	30	1.50	-1.36	0.73	14.7	6	.....	.....	.....	se.	U. S. Weather Bureau.
Houlton	Aroostook	362	12	16.9	.....	48	3	-30	25	38	0.80	-1.53	0.30	14.5	4	23	4	4	n.	Bangor & Aroostook R.
Lewiston	Androscoggin	185	40	21.2	-2.2	52	3	-14	27	29	2.50	-1.54	1.13	7.6	7	15	7	9	n.	Union Water Power Co.
Madison	Somerset	257	11	16.2	.....	51	4	-28	26†	41	2.19	-1.00	1.09	10.8	5	20	5	6	ne.	William Jardine.
Millinocket	Penobscot	386	11	16.6	.....	52	3	-24	25	36	2.40	-0.62	0.65	15.8	6	22	2	7	w.	Great Northern Paper
North Bridgton	Cumberland	450	21	21.6	-2.1	60	3	-20	26	34	1.96	-1.56	1.12	11.0	5	6	16	9	e.	G. E. Chadbourne.
Orono	Penobscot	129	45	24.0	+2.7	62	4	-17	24	43	1.20	-2.42	0.37	5.0	4	18	8	5	nw.	Department of Physics
Patten	do.	550	12	14.6 <sup>a</sup>	.....	57 <sup>d</sup>	3	-29 <sup>d</sup>	25	46 <sup>d</sup>	1.20	.....	0.60	12.0	3	14 <sup>d</sup>	5 <sup>d</sup>	8 <sup>d</sup>	ne.	Bangor & Aroostook R.
Portland	Cumberland	99	43	24.4	-2.7	56	3	-6	26	29	2.98	-0.70	1.51	8.1	10	13	7	11	n.	U. S. Weather Bureau.
Presque Isle	Aroostook	.....	5	14.2	.....	49	3	-34	25	30	2.10	.....	0.60	18.0	5	16	6	9	nw.	E. M. Libby.
Rumford	Oxford	505	21	19.8	-1.7	52	3	-14	27	27	2.09	-0.82	1.38	13.8	5	19	8	4	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	9	11.5	.....	48	3	-42	25	34	1.39	.....	0.45	6.8	6	16	5	10	nw.	J. M. Thomas.
Winslow	Kennebec	90	19	21.4	+0.4	60	1	-25	26	35	1.77	-1.14	0.80	5.5	4	18	4	9	w.	Hollingsworth & Whitn
New Hampshire.																				
Alstead Center	Cheshire	1,120	10	22.4	-0.9	57	3	-15	26	26	1.73	-1.14	0.70	15.0	7	19	4	8	nw.	Frank Dewing.
Benton	Grafton	5	5	18.4	.....	52	2	-15	25†	34	1.81	.....	0.80	17.0	8	16	8	7	nw.	State Sanatorium.
Bethlehem	do.	1,470	22	19.1	-1.5	53	2	-21	26	33	0.65	-1.67	0.17	3.5	8	16	7	8	sw.	Benjamin Tucker.
Concord	Merrimac	350	54	22.3	-4.1	56	1	-20	27	34	2.07	-1.28	1.15	9.3	10	9	8	14	w.	U. S. Weather Bureau.
Durham	Stafford	88	19	26.2	-2.1	66	1	-15	27	44	3.14	+0.27	1.23	8.0	9	13	7	11	nw.	Agr. Exp. Station.
Franklin	Merrimac	440	15	22.1	-1.5	56	3	-21	27	36	2.89	-0.27	1.12	18.5	8	13	10	8	nw.	Dr. C. P. Webster.
Grafton	Grafton	863	28	.....	.....	56	3	-29	26	35	1.54	+0.82	0.56	9.1	10	10	8	13	n.	P. R. Kimball.
Hanover	do.	603	80	19.7	-1.7	56	3	-25	26	35	1.54	-0.98	0.70	8.1	8	12	9	10	nw.	Dartmouth College.
Keene	Cheshire	506	29	22.0	-3.6	61	1	-25	27	40	1.76	-0.98	0.70	8.1	8	12	9	10	nw.	Samuel Wadsworth.
Nashua	Hillsboro	125	29	25.2	-2.5	61	1	-18	27	34	2.62	-0.75	1.40	5.8	8	9	10	12	nw.	C. B. Stevens.
Newton	Rockingham	26	26	23.6	-4.1	61	1	-16	27	35	2.98	+0.13	1.08	4.0	7	14	9	8	nw.	W. C. Gale.
Plymouth	Grafton	500	26	20.0	-2.2	52	3	-26	27	41	2.20	-0.97	0.88	15.5	5	17	2	12	w.	Hattie G. Trow.
Vermont.																				
Bloomfield	Essex	7	7	17.6	.....	55	2	-37	26	47	1.18	.....	0.29	5.8	9	17	5	9	s.	Lyman Falls Power Co.
Burlington	Chittenden	404	6	21.2	-1.3	54	3	-17	26	27	1.25	-0.44	0.50	7.7	9	4	11	16	n.	U. S. Weather Bureau.
Cavendish	Windsor	910	11	19.6	.....	52	3	-36	26	42	2.95	.....	1.38	25.0	4	9	9	13	.....	Colonial Power Co.
Chelsea	Orange	840	19	.....	.....	63	2	-18	26	27	1.24	-1.02	0.41	12.0	8	7	9	15	n.	W. F. Dewey.
Cornwall	Addison	517	20	23.2	-2.2	63	2	-18	26	27	1.24	-1.02	0.41	12.0	8	7	9	15	n.	C. H. Lane.
Enosburg Falls	Franklin	601	22	20.6	-1.7	62	2	-25	26	38	1.43	-1.54	0.47	5.5	9	11	9	11	nw.	L. H. Pomeroy.
Hyde Park	Lamoille	576	2	21.0	.....	63	2	-27	27	43	1.55	.....	0.75	17.0	10	9	8	14	s.	A. V. Wiswell.
Manchester	Bennington	980	15	.....	.....	57	2	-32	26	47	1.19	-1.52	0.56	14.7	7	6	11	14	s.	N. M. Canfield.
Northfield	Washington	876	27	18.0	-2.5	57	2	-32	26	47	1.19	-1.52	0.56	14.7	7	6	11	14	s.	U. S. Weather Bureau.
Somerset	Windham	2,096	2	15.4	.....	53	1	-36	26	42	3.25	.....	0.80	16.5	9	9	15	7	nw.	Power Construction Co.
St. Johnsbury	Caledonia	711	21	20.0	-0.7	55	2	-32	26	37	1.24	-1.01	0.58	9.6	10	14	9	8	w.	Fairbanks Museum.
Wells	Rutland	750	21	21.1	-2.7	58	2	-16	26	30	1.06	-1.28	0.34	6.0	4	6	14	11	sw.	E. R. Pember.
Woodstock	Windsor	700	22	19.8	-1.7	55	3	-32	26	40	2.70	+0.17	1.23	21.0	6	9	3	19	n.	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	25	24.6	-2.7	59	3	-19	27	30	2.89	-0.62	1.10	5.5	8	16	5	10	ne.	Agr. Exp. Station.
Blue Hill	Norfolk	640	30	27.2	-2.6	58	1	-6	26	27	4.56	+1.11	1.14	9.1	16	10	7	14	w.	Blue Hill Observatory.
Boston	Suffolk	124	44	30.4	-1.2	62	3	-2	26	31	3.46	+0.05	0.92	4.1	10	6	11	14	w.	U. S. Weather Bureau.
Chestnut Hill	do.	124	35	29.0	-1.4	60	1	-4	26	27	3.98	+0.78	1.10	4.2	8	20	11	0	.....	Met. Water Board.
Clinton	Worcester	370	18	.....	.....	62	1	-17	27	33	3.30	-0.04	0.98	5.8	11	8	12	11	ne.	Do.
Concord	Middlesex	139	24	24.8	-2.6	62	1	-17	27	33	3.30	-0.04	0.98	5.8	11	8	12	11	ne.	Fred A. Tower.
Fall River	Bristol	200	48	30.6	-3.6	60	3	-1	26	26	5.31	+1.88	1.58	3.2	14	8	15	8	ne.	C. V. S. Remington.
Fitchburg	Worcester	550	31	25.4	-3.1	64	1	-13	27	24	3.28	-0.27	1.10	11.0	11	15	9	7	nw.	Dr. A. P. Mason.
Framingham	Middlesex	160	34	26.8	-3.5	61	1†	-12	27	31	3.36	-0.27	1.08	4.3	11	.....	.....	.....	nw.	Met. Water Board.
Hyannis	Barnstable	31	23	32.6	-4.5	57	3	8	26	25	5.46	+1.96	2.00	.....	12	13	7	11	nw.	C. F. Sleeper.
Lawrence	Essex	51	30	25.2	-3.4	61	1	-14	27	31	2.96	-0.25	1.06	5.5	12	11	12	8	w.	Essex Company.
Lowell	Middlesex	100	29	27.4	-1.4	59	1†	-15	27	30	3.21	-0.34	1.03	5.2	10	.....	.....	.....	ne.	Props. Locks & Canals
Middleboro	Plymouth	53	28	28.9	-2.1	63	1†	-3	26†	40	5.03	+1.82	1.48	2.9	14	7	14	10	ne.	A. R. Gurney.
Nantucket	Nantucket	47	28	34.7	-2.0	56	2	14	26	26	6.73	+3.09	2.11	2.2	13	5	12	14	ne.	U. S. Weather Bureau.
New Bedford	Bristol	88	102	31.8	-0.2	61	3	0	26	26	5.38	+1.34	1.46	1.8	10	17	2	12	ne.	City Engineer.
Norfolk	Norfolk	244	11	26.1	.....	63	1	-14	27	33	3.83	.....	1.36	3.0	9	17	3	11	nw.	Ruby H. Martyn.
Plymouth	Plymouth	29	28	28.4	.....	56	4	-2	26	28	6.30	.....	2.82	4.2	10	13	4	14	w.	L. B. Knapp.
Provincetown	Barnstable	40	27	33.6	-1.5	52	3	11	27	22	5.71	+1.99	1.98	4.0	11	13	3	15	ne.	Gideon Bowley.
Rockport	Essex	25	12	30.5	.....	55	3	3	27	25	6.68	.....	0.91	1.5	8	8	15	w.	C. F. P. Bearse.	
Rutland	Worcester	1,160	12	22.4 <sup>a</sup>	.....	62 <sup>c</sup>	1	-10 <sup>a</sup>	25	29 <sup>c</sup>	4.25	.....	1.61	6.5	11	10 <sup>c</sup>	9 <sup>c</sup>	9 <sup>c</sup>	nw.	State Sanatorium.



## Daily Precipitation for December, 1914.

Stations.	Watershed.	Day of month.																															Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Maine.																																		
Ashland	St. John		.21												.35					.03	.07	.21	.01							.07	.37	1.32		
Bar Harbor	Coast														.55					.50		.15	T.						.65		.70	T.	1.95	
Cambridge	Kennebec			.05											.70					.20		.20									.50		1.65	
Cornish	Saco		.11											.10	1.32					.18		.60		T.	T.					.15	.08		2.51	
Danforth	Penobscot														.75						.35	*	.35							*	.50		1.95	
Eastport***	Coast			.05											.26					.38	.08	.66						.05		.42			1.95	
Eustis	Kennebec		T.							T.					.87	T.	T.	T.	T.		.37	.33	T.	.01		T.				T.	.28	T.	1.86	
Fairfield	do														.41					*	.31	.28	T.							*	.14		1.14	
Farmington	do			T.										T.	1.35					T.	.02	.54	T.				.03		.02		.20		2.16	
Farmington	do		.02	.15											.87						.42	.52	.03				.05		T.		.11	.05	2.24	
Freemville**	do		T.											.35	.38	.02				.20		.45	T.			T.			T.		.10	T.	1.50	
Houlton	St. John														.20					.15		.30								.15			0.80	
Howe Brook	Penobscot			T.											.16						.05	.17	.08							.12	.10		0.68	
Lewiston	Androscoggin				.07										1.13					.41		.67					.05		.01		.16		2.50	
Madison	Kennebec														.74	.35					.20		.62							.28			2.19	
Millbrook	Penobscot		T.		.04										.65	.10					.53		.62							.46			2.40	
North Bridgton	Saco														1.12							.60				.01			.02		.21		1.06	
Quosnoe	Androscoggin														.50						.45		T.				.01						1.05	
Urono	Penobscot				.33										.37							.30	.20										1.20	
Upton	do														.30																		1.20	
Portland***	Coast			.06											.17	.59					.45		1.51	.01		.03			.05		.03	.08		2.98
Presque Isle	St. John			.30											.60	T.					T.		.40	.50							.30		2.10	
Rumford	Androscoggin														.18	1.20	T.				.06		.51		T.								2.09	
Van Buren	St. John			.07	.12										.38						.35		.07		.65				T.		.14		1.39	
Winslow	Kennebec														.80																.17		1.77	
New Hampshire.																																		
Alstead Center	Connecticut								.01		T.	T.		T.	.52						.18	.07	.70				T.	.03			.22		1.73	
Benton	do		.03												.50	.10					.03		.80	.05		T.	.05			.25			1.81	
Bethlehem	do		.01												.16		.05				.03		.10		T.	.03				T.	.17		0.65	
Brookline	Merrimack			.03				.92							1.05						.15		.85		T.	.10				.06			3.16	
Concord***	do			.01				.02	T.			T.			.52	.63					.06	.01	.67		T.	.06	.01			.08			2.07	
Durham	do				.09				.08						1.23						T.	.34	1.17			.07			.02		.11	.06		3.14
Franklin	do				.05										1.12						.26	.03	1.07		T.	.07				.25	.04		2.89	
Franklin	do														.12																			
Granov	Connecticut		T.	T.	T.									.01	.53						.10	.02	.56	.01		.06	.03			.21			1.54	
Greene	do								.03		.01	T.			.61						.17	.70		T.	.08				.16	.03			1.76	
Hudson	Merrimack														1.40						T.	.13	.88			*	.04			.07	.08		2.62	
Keaton	do			.06											1.08						.25		.85		T.					.30			2.98	
Plymouth	do			T.					.40						.86						T.	.20	.88	T.	T.	T.	.04				.20	.06		2.20
Vermont.																																		
Bloomfield	Connecticut			.01											.29						.05	.18	.37	.05						.15	.17		1.18	
Burlington***	Champlain		.04	.22							.01	T.			.17	.33	.01	T.			T.	T.	.11	T.	.05					.32	T.		1.25	
Camden	Connecticut														1.38						T.	.33	.88		T.						.36		2.95	
Chelsea	do																																	
Concord	Champlain			.05																														
Danbury Falls	do			T.	.31						.05				.41						.10		.15		T.		.10				.28			1.24
Lyde Park	do			T.	.03										.47		.03	T.			.03	T.	.10		T.		.02				.44	.02		1.43
Manchester	do														.75	.02					.06	.13	.25	.01	T.					.15	.09	T.	1.55	
Northfield***	Hudson														.32	.24																		
Ormsby	Champlain														.75	.02																		
Ormsby	Connecticut														.36	.20					*	.80	.22	.67		.04				.22	T.		1.19	
St. Johnsbury	do		T.	T.					.60						.36	.20						.80	.22	.67		.04				.22	T.		3.25	
Upton	do														.32	.32		.03			.01	.13	.45	.01	.02		.15			.15	.07		1.24	
Vernon	do							.13							.89						.28		.57		.02		.05				.15			2.03
Vernon	Champlain														.34	.24					.24	.34	.24							.24			1.06	
Woodstock	Connecticut														* 1.23						.24		* 1.11							.36			2.70	
Massachusetts.																																		
Amherst	Connecticut							.43	.14		T.				.55	.55					.16	.72		T.	T.	.04				.30			2.89	
Ashland	Merrimack		*	.13				*	.50						1.02						.27		.55		T.	.04				.01			3.24	
Bakers Bridge H.	do						.55								.95						.35		.55							.42			2.87	
Bedford	do		.15					.05	.38		T.				.83						.24	.04	.79		T.	.03				.34			2.85	
Blue Hill	Coast		.11	.06			.01	.51	.92	.02	.04	T.			.05	.09					.25	.05	.94		T.	.02	.04			.39			4.56	
Boston***	do		.10	.01				.46	.42	T.					.43	.47					.23		.92		T.	.03				.39	T.		3.46	
Brookline	Coast		.19	.05			T.	.26	.68	.04	.22				.60						T.	.34	.60		T.	.08			.06	.26	.09		3.47	
Bhestnut Hill	do		.21					.95	.02		T.				1.01						.24		1.10							.40			3.98	
Clinton	Merrimack			* .05				*	.83			.01			1.39						.24		.82		*									



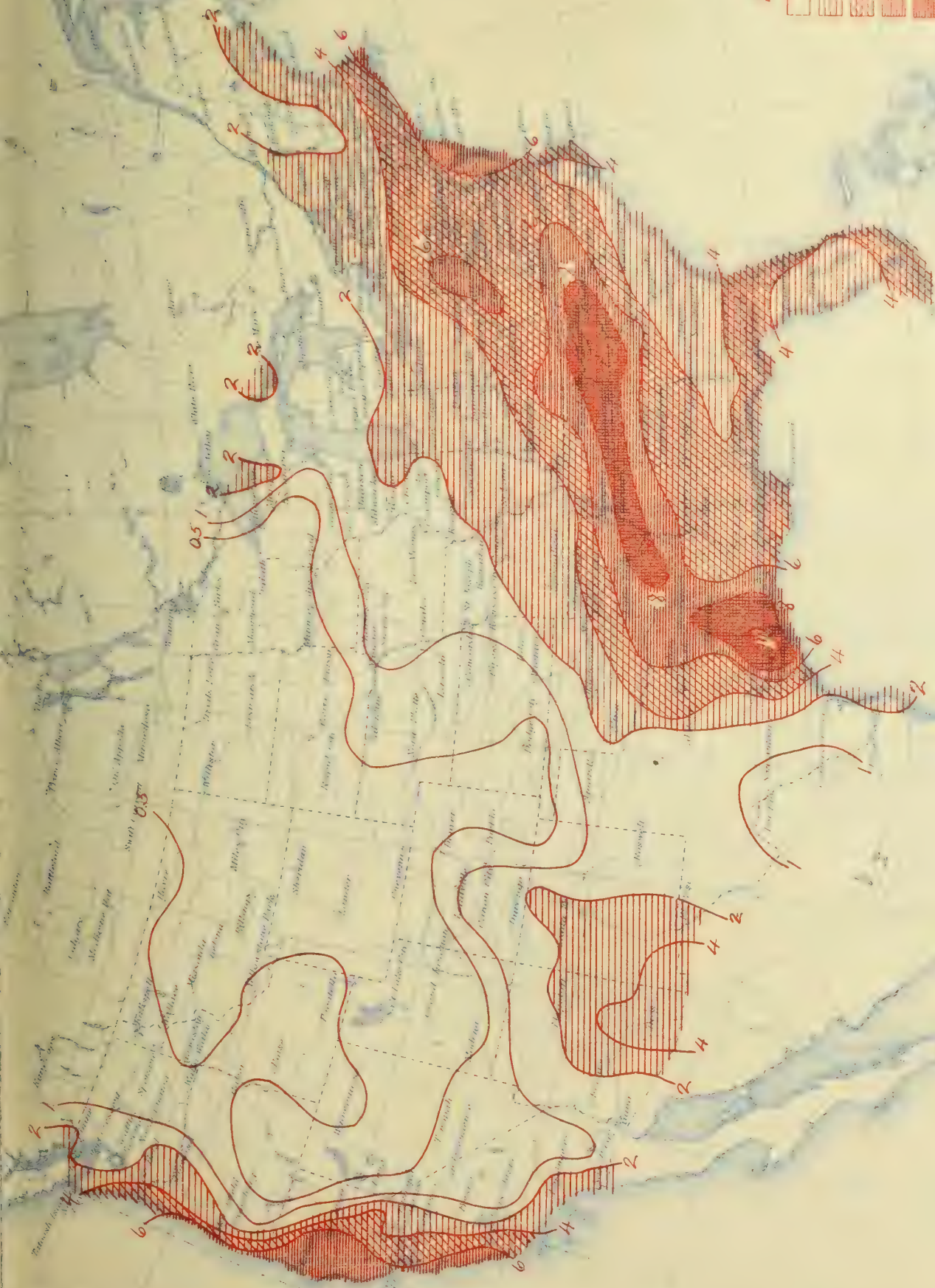
## Daily Temperatures for December, 1914.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean	
Maine.																																	
Bar Harbor	Maximum	58	52	50	40	38	30	32	30	28	38	30	30	46	50	30	24	28	32	46	46	35	36	10	10	2	-7	35	36	48	48	37	33
	Minimum	29	32	30	28	30	22	24	18	19	20	18	10	5	10	17	14	16	5	10	14	13	26	-6	-2	-7	-12	15	7	18	3	13	
Cornish	Maximum	58	53	62	53	38	34	33	43	34	31	43	41	35	52	29	37	35	34	32	27	22	41	27	21	21	16	18	28	33	50	34	36
	Minimum	26	30	39	22	20	16	19	29	20	21	11	4	5	23	12	12	9	4	6	13	10	17	-8	-22	-10	-31	-24	-2	-2	30	4	9
Eastport	Maximum	53	50	49	35	26	29	29	31	24	25	32	29	36	49	25	20	24	28	44	44	35	31	13	7	5	-1	32	27	44	43	31	30
	Minimum	39	43	35	21	16	17	24	24	21	21	20	16	21	25	18	9	17	17	22	14	13	13	-1	-5	-7	-11	7	15	27	31	11	16
Greenville	Maximum	53	47	50	34	25	25	26	29	23	20	25	28	25	37	17	16	17	23	27	32	17	27	13	4	0	-4	11	4	27	31	28	24
	Minimum	32	37	34	22	13	3	8	19	10	5	12	15	5	16	-5	0	4	3	0	9	4	10	-9	-13	-14	-16	-19	4	3	10	1	6
Millinocket	Maximum	46	46	52	43	31	31	28	30	25	20	30	80	29	39	31	18	21	24	27	34	14	29	21	4	4	2	7	26	32	39	34	27
	Minimum	80	34	34	27	10	1	2	14	12	4	14	13	1	25	8	5	0	10	-3	14	2	14	-10	-23	-24	-16	-14	-12	-6	23	5	6
Orono	Maximum	56	53	59	62	52	35	35	35	42	36	35	41	42	50	42	34	26	30	37	40	29	31	35	26	18	7	14	27	28	39	41	36
	Minimum	34	34	40	31	12	8	11	20	13	11	13	5	4	27	14	8	12	10	9	25	10	18	-4	-17	-8	-14	-15	-2	4	24	9	11
Portland	Maximum	51	46	56	44	30	29	30	35	26	27	36	36	39	50	24	31	28	27	37	38	37	31	18	17	13	10	18	26	32	46	25	32
	Minimum	31	36	36	30	22	18	19	26	20	22	18	17	19	21	13	17	13	14	18	17	18	15	7	3	-4	-6	-5	14	14	25	13	16
Presque Isle	Maximum	45	43	49	38	33	25	22	22	16	30	38	36	30	20	17	12	19	30	31	16	24	20	0	-4	-2	1	21	25	38	30	24	4
	Minimum	33	36	35	18	15	1	0	7	3	-1	5	15	20	18	6	3	-10	2	4	6	-6	8	-10	-20	-34	-30	-23	0	13	23	0	4
Rumford	Maximum	44	44	52	40	31	30	34	40	27	28	30	32	28	40	21	24	24	25	27	37	32	31	11	14	8	4	13	28	28	42	20	28
	Minimum	31	36	33	27	16	12	10	29	15	16	13	12	10	18	13	14	6	3	3	11	10	9	-1	-11	-5	-8	-14	2	2	21	3	10
Van Buren	Maximum	40	42	48	37	23	25	25	24	24	26	29	25	22	37	34	10	16	21	21	28	18	22	12	-10	-15	-12	0	19	25	38	35	22
	Minimum	26	35	35	21	9	-6	-5	4	2	-6	7	-3	-4	20	0	1	-5	-5	10	16	-7	9	-2	-38	-42	-28	-32	-5	4	26	-1	0
New Hampshire.																																	
Alstead Center	Maximum	45	51	57	44	32	29	30	40	36	28	30	30	32	29	18	20	20	20	33	35	30	29	17	13	13	0	13	25	28	37	32	28
	Minimum	38	38	44	27	22	19	22	28	22	20	23	17	17	18	7	13	8	6	12	20	20	17	0	3	0	-15	-13	7	14	27	8	15
Bethlehem	Maximum	44	53	48	36	29	30	34	40	29	26	27	30	33	41	17	21	21	25	36	36	34	27	14	9	9	-4	17	23	25	42	26	28
	Minimum	33	38	34	23	14	11	13	26	13	17	13	10	13	16	6	8	4	5	10	3	14	13	-12	-6	-21	-16	9	9	25	0	9	9
Concord	Maximum	58	46	56	46	34	31	33	41	28	33	35	37	35	44	22	29	26	27	39	39	33	28	19	18	14	7	11	28	31	44	24	32
	Minimum	29	29	34	28	14	21	20	32	30	23	23	18	15	10	13	12	15	11	4	7	17	15	-7	-12	-6	-11	-20	-6	3	23	6	12
Franklin	Maximum	49	49	56	47	34	31	32	47	35	33	36	36	34	39	23	30	28	29	25	39	24	31	21	15	12	8	15	27	31	45	31	32
	Minimum	25	30	37	30	21	16	19	32	23	22	22	11	9	22	10	13	4	1	4	20	12	19	-11	-18	-2	-11	-21	7	0	29	10	12
Hanover	Maximum	45	49	56	47	34	31	32	47	35	33	36	36	34	39	23	30	28	29	25	39	24	31	21	15	12	8	15	27	31	45	31	32
	Minimum	30	33	35	26	19	15	13	30	22	22	17	5	8	18	10	4	0	-3	3	11	8	18	-12	-14	-8	-29	-26	-5	5	28	5	9
Nashua	Maximum	61	48	59	46	33	32	31	33	30	33	38	38	34	46	29	31	29	31	36	41	32	33	24	20	20	10	12	33	40	44	36	34
	Minimum	30	32	32	29	25	23	26	28	22	22	20	14	12	29	13	16	11	5	10	30	19	22	4	2	6	-7	-18	-1	6	30	16	16
Plymouth	Maximum	45	51	52	47	35	32	34	43	34	31	30	34	31	40	27	24	23	23	22	36	21	32	20	12	11	4	9	28	25	41	38	30
	Minimum	26	30	36	27	21	14	9	30	22	21	21	13	5	20	9	8	-2	-7	-3	21	11	20	-9	-20	-4	-9	-26	-13	-5	25	10	9
Vermont.																																	
Burlington	Maximum	52	62	54	35	26	32	33	26	25	30	31	35	35	25	24	21	22	38	36	34	30	13	10	0	-1	17	27	36	42	21	28	
	Minimum	46	47	35	25	18	16	18	22	17	18	16	10	15	13	9	6	8	13	20	12	4	-2	-8	-10	-17	-10	16	12	18	10	13	10
Enosburg Falls	Maximum	54	62	57	37	31	32	34	35	29	26	29	35	34	36	19	17	24	27	35	36	34	12	9	6	24	20	33	33	42	20	29	
	Minimum	47	42	37	24	14	12	14	27	15	20	10	2	22	15	11	4	3	10	10	6	0	12	-3	-19	-16	-25	-18	18	20	20	14	11
Northfield	Maximum	47	57	51	38	30	32	32	40	29	28	28	33	31	38	20	24	23	22	38	37	35	27	14	5	8	-1	21	24	38	45	20	29
	Minimum	48	40	32	22	16	12	11	24	17	22	9	6	18	12	8	6	-6	-6	1	3	2	3	-12	-13	-28	-32	-26	4	1	17	5	6
St. Johnsbury	Maximum	42	55	41	42	35	35	38	43	34	32	29	34	33	38	27	25	25	25	29	37	31	22	7	5	0	12	25	23	42	36	30	
	Minimum	30	35	40	30	17	13	11	30	15	23	14	5	13	27	10	4	5	-4	2	17	1	20	-10	-17	-11	-32	-25	7	0	23	5	9
Wells	Maximum	50	58	50	38	26	28	32	30	28	30	27	31	36	20	18	18	18	16	36	34	30	16	18	15	-4	8	27	30	36	32	25	13
	Minimum	38	42	38	25	19	18	18	25	18	22	20	12	22	20	5	12	5	6	6	24	10	16	0	0	-6	-16	-16	7	14	26	4	13
Massachusetts.																																	
Amherst	Maximum	57	50	59	47	37	33	32	35	30	37	39	38	38	39	23	29	29	30	37	39	35	29	21	20	15	13	9	25	31	43	35	33
	Minimum	51	31	37	33	26	26	29	30	27	25	24	20	15	18	12	15	13	5	14	23	21	16	5									



Scale of Shades.

0 to 2 inches.
2 to 4 inches.
4 to 6 inches.
6 to 8 inches.
Over 8 inches.





		Day of month.																															Total.
Stations.	Watershed.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
<i>Rhode Island.</i>																																	
Block Island ***	Coast	.31						1.18	.20	.01	.05			.68	.36						.70		.91			.06			T.		.43	.09	
Bristol	do	.40					T.	1.20	*	.09				* 1.25							.32		.72			.01			T.		*	.39	
Greene	do	.71						.98						1.63							.43		.54			*	.03				.27		
Hope Valley	do	.10						.85	.10	.02				T. 1.85							.37	.10	.83			*	.10		.35				
Kingston	do	.32						1.80	.15		.10			1.82							.44		.92			.02					.40	.06	
Narrag'sett Pier***	do	.32	.05					1.26	.29		.04			.05 1.15							.46	.06	.98			T	T.		T.		.45	.03	
Pawtucket	do	*	.89					*	.92					* 1.41							.35		.53			* .02			T.		*	.38	
Providence**	do	.27	.03				T.	.26	.23	T.	.02			.14	.46						.41		.53		T.	.04	T.		.01	.23	T.		
Wallum Lake	do	.40						.65						.20							.41	.40	.30			.05		.10	.48				
<i>Connecticut.</i>																																	
Bridgeport	Coast	.03					.12	1.00	.08	.04				.45 1.43							.40	.02	.90			.10			*	.38			
Canton	Connecticut						*	1.32						* 1.80							.23		.70			.03					.52		
Colchester	Coast	T.						* .92	T.					* 1.59							*	.37	.37			*	.20		T.		.49		
Cream Hill	Housatonic.							.50	.24					.05 .72							.43		.56			.08				.32	.11		
Danielson	Coast	.25						T.													T.		.75			.10			T.		.50		
Falls Village	Housatonic.							.60	.03	T.				.70 .08							.41		.45			.04				.27			
Hartford ***	Connecticut	T.	.01				T.	.81	.28					1.00 .46							.27		.55			.01			T.		.46		
Hawleyville	Housatonic.							.02	.30					.20								.20	.69		.20					1.17			
Lake Konomocott	Coast							.08	.22					1.39							.10	.45	.80			.07			T.		.15	.16	
New Haven***	do		.03				.12	.89	.28	.04	T.			1.76	.09						.40	T.	.87			.08				.31			
New London	do		.31	.19			.02	.68	.22					1.45							.20	.											

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.  
 †† Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.

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U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU

CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

ANNUAL, 1914

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BY

JOHN W. SMITH

DISTRICT FORECASTER AND SECTION DIRECTOR

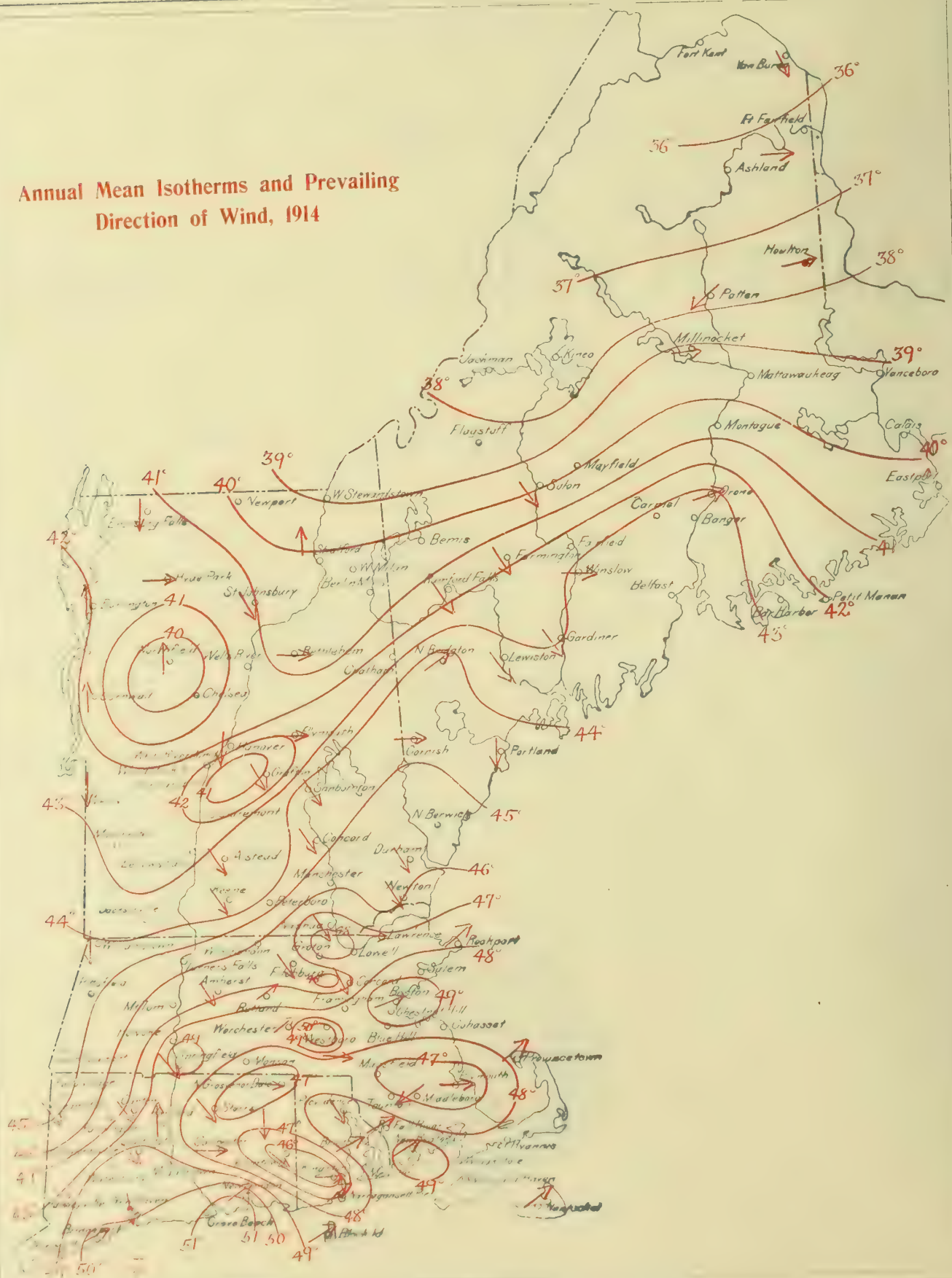
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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
FEBRUARY 3, 1915



# Annual Mean Isotherms and Prevailing Direction of Wind, 1914





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, District Forecaster and Section Director.

VOL. XXVI. BOSTON, MASS., ANNUAL, 1914. No. 13.

## GENERAL SUMMARY.

The average temperature for the year,  $45.0^{\circ}$ , was slightly below the normal,  $3.1^{\circ}$  below that of 1913, and the lowest for any year since 1907. The greatest monthly deficiency,  $5.6^{\circ}$ , was in February. A deficiency of more than  $2^{\circ}$  also occurred in April, July and December. The only month with a marked excess in temperature was October, with an average  $3.8^{\circ}$  above the normal. The average precipitation, 35.07 inches, was the lowest for any year within the record of the sectional averages, beginning in 1888. Although the precipitation was below the normal for all months of the year, with the exception of March and April, the deficiency was not great until September; at the end of August it being only 2.67 inches. The three fall months, however, September, October and November, were unusually dry, and accumulated an additional deficiency of 5.24 inches. The deficiency was somewhat further increased in December. The previous lowest average annual precipitation since 1888 was 5.52 inches in 1910; the greatest during this time was 56.19 inches, in 1888. The average snowfall, 58.3 inches, was somewhat less than the normal, as determined from the records of the last 27 years. The conditions during the growing season, except for the low temperatures during the early part of May and in July, were, as a rule, favorable. The warm and sunny weather in the fall was particularly favorable for ripening and harvesting, and the drought occurring late in the season was much less damaging than it otherwise would have been.

The annual mean temperature (entire district),  $45.0^{\circ}$ , was  $8^{\circ}$  below the normal, based on stations having ten or more years' records, and  $3.1^{\circ}$  below the mean of the year 1913.

Annual means by states: Maine,  $41.0^{\circ}$ ; New Hampshire,  $35.5^{\circ}$ ; Vermont,  $41.4^{\circ}$ ; Massachusetts,  $47.6^{\circ}$ ; Rhode Island,  $47.7^{\circ}$ ; Connecticut,  $47.9^{\circ}$ .

The highest annual mean,  $51.2^{\circ}$ , at New London, Conn.; lowest annual mean,  $35.4^{\circ}$ , at Van Buren, Me. Highest recorded,  $90^{\circ}$ , at Durham, N. H., on May 27; lowest recorded,  $-44^{\circ}$ , at Bloomfield, Vt., on January 14. Annual range for New England,  $143^{\circ}$ ; greatest local annual range,  $133^{\circ}$ , at Bloomfield, Vt.; least local annual range,  $88^{\circ}$ , at Block Island, R. I.; greatest local daily range,  $59^{\circ}$ , at Patten, Me., on January 24.

The annual average precipitation (entire district), 35.07 inches, is 8.05 inches below the normal, based on stations having ten or more years' records, and 5.05 inches below the average for the year 1913.

Annual State averages: Maine, 32.98 inches; New Hampshire, 35.58 inches; Vermont, 30.16 inches; Massachusetts, 36.92 inches; Rhode Island, 37.58 inches; Connecticut, 38.44 inches. The greatest annual amount, 45.94 inches, at Bridgeport, Conn.; least annual amount, 18.75 inches, at Houlton, Me. Greatest local monthly fall, 11.18 inches, at Benton, N. H., in April; least monthly fall, 0.12 of an inch, at Concord, Mass., in September; greatest fall in any 24 consecutive hours, 5.72 inches, at Norwalk, Conn., on March 1. Average number of days with 0.01 inch or more, 104.

Average annual mean pressure, 30.03 inches. Highest recorded, 30.83 inches, at Burlington, Vt., on February 13; lowest recorded, 28.27 inches, at New Haven, Conn., on March 1. Annual range for New England, 2.56 inches.

Prevailing direction of wind, northwest; maximum velocity, 38 miles per hour, on April 12, at Blue Hill Observatory, Cape Cod, Mass.

## THE WEATHER BY MONTHS.

**JANUARY.**—The average temperature was near the normal. The precipitation was less than normal, but with an average amount of snowfall. Snow covered the ground through the month, except in the southern coast sections, with depths ranging from a few inches in the interior of the southern states, to between 30 and 40 inches in some sections of northern New Hampshire and northern Maine. One of the most severe cold waves of record prevailed on the 13th and 14th, temperatures below zero occurring throughout the section, accompanied by high northwest winds. The maximum temperatures on the 13th were among the lowest, if not the lowest, of record in this section. At some stations in the northern portion the temperature did not rise above  $-20^{\circ}$ , and in the southern states the highest of the day was but little above zero.

**FEBRUARY.**—The first week was warmer than usual. The remainder of the month was extremely cold, making the average temperature the lowest for February, with two exceptions, since 1888. The snowfall was somewhat above the average amount. The only heavy snowfall was on the 14th, when from 10 to 20 inches fell over the greater portion of the section.

**MARCH.**—Generally seasonal conditions prevailed. The average temperature and precipitation were slightly above the normal, with an average snowfall. In the interior of the northern portion of the section snow remained on the ground through the month, the depth diminishing from between 20 and 30 inches at the beginning, to 10 inches or less at the end of the month. On the coast and in the southern states, except in western Massachusetts and northwestern Connecticut, there was little snow at anytime, and generally none after the middle of the month. Unusually low barometer readings attended the low-pressure area that passed over the section on the 1st.

**APRIL.**—The month was colder than usual, with precipitation above the normal. In some localities the rainfall exceeded that of any other April in the past 28 years. Snow fell in the northern portions of New Hampshire and Maine on several dates during the first half of the month. In the remainder of the section there was little or no snow. The snow on the ground in the northern states melted gradually so that only moderate river stages occurred. Owing to the low temperature and excessive rainfall, the growth of vegetation was retarded, and at the end of the month the season was about two weeks later than usual.

**MAY.**—The weather was cloudy and cool, with general and copious rains during the first half of the month. After the 13th fair and warmer weather prevailed, which was very beneficial to vegetation in overcoming its backward state. There were no damaging frosts.

**JUNE.**—The month was somewhat cooler than usual, with less than the average rainfall. The nights were generally cool, frost causing some damage near the close of the month in northern sections. The rainfall was unevenly distributed in amount and through the month. In portions of Maine and Vermont more than four inches fell, while in Massachusetts and Rhode Island there was a considerable area that received less than one inch. At the end of the month the season was considered to be about two weeks later than usual.

**JULY.**—The average temperature was lower than normal, with much cloudy weather. There were only a few days with maximum temperatures above  $90^{\circ}$ , and at many stations the temperature did not reach that point at anytime during the month. Severe thunderstorms, accompanied by hail of large size, occurred in some localities. The amount of sunshine was the least of any July since the beginning of automatic records in 1894.

**AUGUST.**—Except in the amount of sunshine, which was less than in any previous August since 1894, the conditions were seasonable. As in July, there were comparatively few days with temperature of  $90^{\circ}$  or above. Light frost occurred in some localities in the northern portions of New Hampshire and Vermont on the 26th, but caused no damage.



SEPTEMBER.—The rainfall was unusually small, the average for the month being the least of any September since the beginning of the record of sectional averages in 1888. At some stations the amount received was less than in any previous month for more than fifty years. While the average temperature for the section was normal, the highest and lowest temperatures at many stations equalled or exceeded those of any preceding September. No general killing frost occurred until the close of the month. Snow fell in parts of the northern states on the 28th and 29th.

OCTOBER.—The month was warmer than normal, the average temperature being exceeded but twice in the past 26 years. During the first half of the month there was no rain other than scattered light showers. From the 16th to the 19th there was a general and heavy rainfall. The remainder of the month was fair, except light showers during the last few days. Snow fell over the greater portion of the section on the 27th, but was of a measurable amount only in portions of the northern states.

NOVEMBER.—The average temperature was slightly below the normal. The lowest temperature of the month was on the 24th, when readings below zero occurred at scattered northern stations. Precipitation occurred frequently during the first and second decades, fair weather prevailing during the last 10 days of the month. The most severe storm was on the 19-20th, with high winds on the coast, a copious rainfall in the southeastern portion, and a moderately heavy snowfall in the remainder of the section, which remained until near the close of the month.

DECEMBER.—The average temperature and precipitation were below the normal. The snowfall was less than usual and generally confined to the last half of the month. The temperature during the first half of the month was normal. After the 15th steady cold weather prevailed, the lowest temperatures generally occurring on the 25th. The minimum at many stations, and also for the section, was lower than any previously recorded in December. The conditions were unusually favorable for ice harvesting.

## KILLING FROSTS.

Stations.	Last in spring.	First in autumn.	Stations.	Last in spring.	First in autumn.
<i>Maine.</i>			<i>Massachusetts—Continued.</i>		
Bar Harbor.....	June 4	Sept. 28.	Boston.....	Apr. 16	Oct. 27.
Cornish.....	May 16	Sept. 28.	Chestnut Hill.....	Apr. 17	Sept. 29.
Eastport.....	May 2	Oct. 27.	Clinton.....	May 1	Sept. 23.
Fairfield.....	May 16	Sept. 29.	Concord.....	Apr. 24	Sept. 11.
Farmington.....	May 16	Sept. 29.	Fall River.....	Apr. 14	Oct. 27.
Gardiner.....	May 16	Sept. 29.	Fitchburg.....	May 1	Sept. 29.
Greenville.....	June 4	Sept. 28.	Framingham.....	Apr. 24	Sept. 29.
Houlton.....	June 28	Sept. 27.	Lawrence.....	Apr. 24	Sept. 29.
Lewiston.....	Apr. 25	Sept. 29.	Lowell.....	Apr. 24	Sept. 29.
Madison.....	May 16	Sept. 29.	Middleboro.....	May 16	Sept. 27.
Millinocket.....	June 9	Sept. 28.	Nantucket.....	Apr. 14	Nov. 10.
North Bridgton.....	May 16	Sept. 29.	New Bedford.....	Apr. 17	Oct. 27.
Orono.....	May 17	Sept. 28.	New Bedford.....	May 16	Sept. 9.
Portland.....	Apr. 25	Sept. 29.	Norfolk.....	May 2	Oct. 28.
Presque Isle.....	June 28	Sept. 11.	Plymouth.....	May 17	Oct. 28.
Rumford Falls.....	May 16	Sept. 29.	Provincetown.....	Apr. 17	Oct. 28.
Van Buren.....	June 28	Sept. 27.	Rockport.....	Apr. 17	Oct. 28.
Winslow.....	May 16	Sept. 29.	Rutland.....	May 12	Sept. 28.
<i>New Hampshire.</i>			Turners Falls.....	May 2	Sept. 29.
Alstead Center.....	May 13	Sept. 29.	Westboro.....	Apr. 25	Sept. 29.
Benton.....	May 15	Sept. 27.	Williamstown.....	May 2	Sept. 29.
Bethlehem.....	May 16	Sept. 29.	Worcester.....	Apr. 16	Sept. 29.
Concord.....	May 16	Sept. 28.	<i>Rhode Island.</i>		
Durham.....	May 16	Sept. 28.	Block Island.....	Apr. 14	Nov. 10.
Franklin.....	May 16	Sept. 29.	Bristol.....	Apr. 13	Nov. 10.
Grafton.....	June 6	Sept. 11.	Kingston.....	May 2	Sept. 28.
Hanover.....	May 16	Sept. 29.	Narragansett Pier.....	May 2	Sept. 29.
Keene.....	May 16	Sept. 9.	Providence.....	Apr. 17	Oct. 27.
Nashua.....	May 16	Sept. 28.	<i>Connecticut.</i>		
Newton.....	May 16	Sept. 12.	Bridgeport.....	Apr. 14	Oct. 27.
Plymouth.....	May 16	Sept. 29.	Canton.....	May 2	Sept. 29.
<i>Vermont.</i>			Colchester.....	May 2	Sept. 29.
Bloomfield.....	June 6	Aug. 25.	Cream Hill.....	May 2	Sept. 29.
Burlington.....	May 2	Sept. 28.	Danielson.....	Apr. 14	Sept. 29.
Chelsea.....	June 6	Sept. 11.	Hartford.....	Apr. 24	Sept. 29.
Cornwall.....	May 2	Sept. 29.	Hawleyville.....	Apr. 14	Oct. 27.
Enosburg Falls.....	May 7	Sept. 11.	New London.....	Apr. 14	Oct. 28.
Northfield.....	May 16	Sept. 12.	N. Grosvenor Dale.....	May 1	Sept. 27.
Somerset.....	May 13	Sept. 10.	Norwalk.....	May 2	Sept. 29.
St. Johnsbury.....	May 16	Sept. 29.	Northampton.....	May 2	Sept. 29.
Wells.....	May 2	Sept. 29.	Torrington.....	May 2	Sept. 29.
Woodstock.....	May 16	Sept. 29.	Voluntown.....	May 20	Sept. 12.
<i>Massachusetts.</i>			Waterbury.....	May 2	Sept. 29.
Amherst.....	May 2	Sept. 28.			
Blue Hill.....	Apr. 24	Sept. 29.			

## COMPARATIVE DATA FOR NEW ENGLAND.

Year.	Temperature.			Precipitation.			Weather.				Wind.			
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.
1888.....	44.3	101	-44	56.19	147	75.4	109	131	126	.....	nw.	10.4	84	
1889.....	48.6	98	-44	49.37	138	44.4	104	115	146	.....	sw.	10.2	78	
1890.....	46.3	100	-36	50.33	147	59.6	107	123	135	.....	nw.	10.9	82	
1891.....	47.4	101	-30	44.95	133	53.0	116	121	128	.....	nw.	10.5	72	
1892.....	45.8	102	-30	38.79	127	53.2	124	110	102	.....	nw.	10.6	77	
1893.....	44.6	102	-39	40.14	136	90.2	126	113	126	.....	sw.	10.4	88	
1894.....	46.7	106	-42	35.85	127	80.9	122	114	129	53	sw.	10.0	87	
1895.....	46.1	100	-29	41.27	122	45.0	130	115	120	54	sw.	10.6	81	
1896.....	47.4	100	-27	40.97	127	67.9	121	112	133	48	sw.	11.8	80	
1897.....	46.4	102	-29	46.71	122	64.7	131	100	134	47	nw.	11.4	70	
1898.....	47.2	103	-32	50.66	129	86.1	130	102	133	48	nw.	10.3	97	
1899.....	46.1	101	-32	40.40	110	69.3	153	98	114	55	nw.	10.3	78	
1900.....	47.5	105	-30	45.69	126	66.1	152	103	109	56	nw.	10.7	84	
1901.....	45.6	104	-31	47.92	124	56.5	144	90	131	53	nw.	10.4	81	
1902.....	46.0	96	-30	46.94	124	67.9	143	98	123	51	nw.	10.1	73	
1903.....	45.8	98	-37	41.75	115	110	157	89	119	60	nw.	9.7	72	
1904.....	42.8	98	-44	40.05	116	79.5	153	95	118	56	nw.	9.6	84	
1905.....	44.4	98	-45	36.96	106	53.1	157	96	112	60	nw.	9.6	84	
1906.....	46.4	102	-36	40.55	111	70.1	151	94	120	54	sw.	9.7	68	
1907.....	44.1	106	-45	43.24	117	80.5	137	102	106	50	nw.	9.9	77	
1908.....	46.7	101	-39	35.62	102	53.4	171	93	102	57	nw.	10.3	84	
1909.....	46.0	100	-32	40.56	126	112	153	99	113	51	nw.	10.2	90	
1910.....	46.5	99	-31	35.52	104	111	153	98	114	52	nw.	10.4	78	
1911.....	46.5	106	-33	38.76	6.64	112	158	91	116	53	nw.	10.6	70	
1912.....	45.4	101	-39	41.88	4.88	110	161	95	110	56	nw.	10.7	79	
1913.....	48.0	102	-36	40.52	4.99	109	161	86	118	54	sw.	10.8	70	
1914.....	45.0	99	-44	35.07	5.72	104	154	95	116	53	nw.	10.8	88	
Means	46.1	106	-45	42.47	8.31	120	62.0	140	103	122	53	nw.	10.4	97

## AVERAGES AND EXTREMES, ANNUAL SUMMARY, 1914

Jan....	21.1	63	-44	2.93	3.00	11	10.4	9	6	16	35	nw.	13.4	80
Feb....	16.8	58	-36	2.48	2.64	7	19.5	15	6	7	62	nw.	13.2	72
March..	32.0	74	-15	4.11	5.72	10	10.6	11	8	12	45	nw.	12.2	86
April...	40.8	88	-3	1.66	3.18	12	4.4	11	7	12	57	nw.	12.5	88
May....	56.8	99	21	2.15	2.64	6	T.	16	8	7	60	nw.	10.3	48
June...	62.7	97	24	2.32	2.24	8	0	14	9	7	60	nw.	9.8	52
July....	66.4	93	35	3.59	3.25	11	0	11	10	10	50	sw.	8.3	56
Aug....	67.2	96	32	3.69	2.80	11	0	12	9	10	52	sw.	7.6	61
Sept...	60.2	97	18	0.98	1.70	5	0	17	8	5	71	nw.	8.8	48
Oct....	52.6	87	8	2.21	3.27	5	T.	14	8	9	54	sw.	9.3	53
Nov....	36.7	76	-10	2.62	3.00	8	6.5	11	9	10	49	nw.	12.3	58
Dec....	24.4	67	-42	3.04	2.82	9	6.9	13	7	11	45	nw.	11.8	71
Means	45.0	99	-44	35.07	5.72	104	58.3	154	95	116	53	nw.	10.8	88

## SUPPLEMENTAL RAINFALL DATA, 1914.

Stations.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
Maine.													
Ashland	1.71	2.62	2.67	3.14	1.69	4.49	2.33	2.51	2.06	2.80	1.94	1.30	2.68
Cambridge	2.69	1.18	2.93	2.98	2.20	2.87	2.04	2.97	1.65	3.08	2.05	1.63	2.68
Danforth	3.55	1.66	5.26	4.95	0.70	3.88	2.73	3.19	1.18	2.84	3.14	1.95	2.68
Eustis	1.43	1.61	4.09	4.00	1.61	2.84	2.53	3.02	2.31	3.34	2.25	1.85	2.68
Howe Brook	2.78	1.55	1.60	1.20	0.17	1.73	0.69	0.74	0.90	1.00	2.41	0.61	2.68
Quossec	0.95	1.15	3.05	2.20	1.80	2.80	2.85	3.40	1.80	2.80	1.40	1.05	2.68
New Hampshire.													
Brookline	2.75	2.88	5.26	4.81	2.33	1.83	3.49	2.49	0.45	1.35	2.38	3.13	2.68
Vermont.													
Vernon	2.67	0.90	2.77	5.43	1.73	2.33	0.79	4.24	0.21	1.69	1.83	2.05	2.68
Massachusetts.													
Ashland	3.58	4.06	4.45	6.59	3.10	1.66	2.99	4.00	0.86	1.60	2.38	3.28	2.68
Bakers Bridge	2.70	1.88	4.27	4.87	2.91	2.16	2.39	2.96	0.16	1.84	2.63	2.81	2.68
Bedford	3.04	2.45	3.55	4.17	2.28	1.85	2.38	4.78	0.11	1.60	2.03	2.81	2.68
Brookton	3.03	3.26	3.31	4.04	2.48	0.86	3.89	3.65	0.78	1.98	2.71	3.43	2.68
Haverhill	2.17	2.38	3.82	6.03	2.30	1.38	0.85	3.58	0.25	1.10	1.77	2.48	2.68
Hingham	3.78	3.15	3.59	4.63	3.12	1.03	3.72	4.62	0.62	1.79	4.49	5.50	2.68
Jefferson	3.61	4.05	4.75	5.36	3.50	2.20	4.02	5.30	0.19	1.93	3.46	4.02	2.68
Lake Cochituate	3.53	4.08	4.41	4.93	2.71	1.59	3.17	3.62	0.27	1.69	2.45	3.35	2.68
Leominster	2.96	2.71	4.68	4.92	2.64	1.97	3.28	3.00	0.18	1.83	2.81	4.65	2.68
Princeton	3.13	3.40	3.46	4.80	2.52	2.02	4.58	3.99	0.11	1.58	3.24	3.65	2.68
Somerset	2.65	2.43	3.73	3.36	2.28	0.96	3.95	2.86	1.57	2.94	2.37	4.13	2.68
Spot Pond	3.36	3.77	4.64	6.62	2.64	2.26	2.93	3.21	0.24	1.52	2.68	3.27	2.68
Sterling	3.00	3.51	4.45	4.65	2.77	1.91	3.80	4.59	0.15	1.82	2.39	4.07	2.68
Taunton	4.70	3.51	4.92	5.22	2.65	1.17	3.52	2.74	0.24	2.51	3.57	5.42	2.68
Winchendon	2.99	1.82	4.59	4.78	2.15	2.95	4.06	3.42	0.68	1.30	2.48	3.14	2.68
Rhode Island.													
Greene	3.95	2.60	3.75	3.96	2.58	0.89	4.70	2.57	0.53	3.00	1.75	4.58	2.68
Hope Valley	4.63	2.30	5.19	4.15	2.28	0.83	4.90	2.91	0.47	4.01	2.73	4.43	2.68
Pawtucket	4.39	3.72	4.83	4.89	2.35	0.80	3.51	2.55	0.55	2.80	2.85	4.28	2.68
Wallum Lake	3.03	2.85	3.99	5.41	3.58	1.63	3.70	4.52	0.39	2.40	2.80	2.93	2.68
Connecticut.													
Falls Village	2.51	2.35	4.23	3.69	3.30	2.97	3.10	2.48	0.55	2.23	2.37	2.68	2.68
Lake Konomoc	3.45	3.32	3.70	5.74	2.23	1.06	3.83	2.45	0.10	3.50	2.75	4.06	2.68
South Manchester	3.35	2.50	4.95	4.79	2.11	1.97	4.61	1.91	0.19	.....	.....	.....	2.68
Wallingford	5.68	4.00	4.50	4.29	2.59	1.88	4.43	1.84	0.36	3.34	3.46	.....	2.68



Climatological Data for the Year 1914.

Stations.	Counties.	Elevation, feet.	Temperature (degrees Fahrenheit).						Precipitation (Inches).						Sky.				Prevailing direction of wind.	
			Length of record, years.	Annual mean.	Highest.	Date.	Lowest.	Date.	Length of record, years.	Total for the year.	Greatest monthly.	Month.	Least monthly.	Month.	Total snowfall.	Number rainy days.	Number clear days.	Number partly cloudy days.		Number cloudy days.
Maine.																				
Bar Harbor	Hancock	20	28				-20	Feb. 18	29						55.5					
Cornish	York	778	59	44.8	93	May 27	-31	Dec. 26	59	39.87	5.98	Aug.	0.84	Sept.	60.7	101	135	109	121	nw.
Eastport	Washington	53	42	40.7	87	May 27	-23	Feb. 12	42	32.13	4.18	Jan.	0.80	May	80.7	127	96	131	138	sw.
Fairfield	Somerset	90	29	42.4	90	May 21	-26	Dec. 26	29	22.85	4.64	Apr.	0.68	Sept.	50.9	46				
Farmington	Franklin	450	17	41.7	92	June 24	-23	Dec. 12	24	34.89	5.32	Mar.	1.62	May	77.0	101	127	119	115	nw.
Gardiner	Kennebec	163	22	42.5	91	Sept. 23	-27	Feb. 16	22	33.72	5.26	Apr.	0.67	Sept.	56.5	123	204	39	122	nw.
Greenville	Piscataquis	1,140	10	37.8	89	Sept. 23	-29	Feb. 12	10	33.78	4.51	Apr.	1.50	Dec.	116.2	126				
Houlton	Aroostook	362	12	39.5	95	Sept. 23	-30	Dec. 25	12	18.75	4.05	June	0.80	Dec.	106.5	59	189	95	81	w.
Lewiston	Androscoggin	185	31	43.1	94	Sept. 22	-20	Feb. 12	41	35.31	5.12	Apr.	0.53	Sept.	58.9	108	144	118	103	nw.
Madison	Somerset	257	11	39.4	94	June 25	-30	Feb. 16	11	42.03	6.76	Aug.	1.32	Feb.	61.4	85	234	27	104	nw.
Millinocket	Penobscot	386	11	39.6	91	May 27	-27	Feb. 24	11	35.79	4.43	Mar.	1.11	May	107.0	111	192	41	132	w.
North Bridgton	Cumberland	450	21	44.6	96	Sept. 22	-20	Dec. 26	21	31.59	5.12	Apr.	0.58	Sept.	65.5	90	102	180	83	lnw.
Prono	Penobscot	129	45	43.3	91	Sept. 2	-24	Feb. 16	46	34.95	4.71	Apr.	1.20	Dec.	66.5	78	204	63	97	sw.
Patten	do	550	12	37.3	92	Sept. 22	-29	Dec. 25	12						98.0		150	57	106	ne.
Portland	Cumberland	99	43	44.1	92	May 26	-17	Feb. 12	44	36.10	4.42	Apr.	0.73	Sept.	57.9	120	143	73	149	ln.
Presque Isle	Aroostook		5	36.5	90	May 26	-36	Feb. 11	5	34.77	4.80	June	2.10	Sept.	129.0	89	189	85	91	w.
Rumford	Oxford	505	21	41.8	90	Sept. 23	-22	Feb. 22	21	33.58	5.02	Aug.	1.13	Sept.	79.5	102	226	73	66	nw.
Van Buren	Aroostook	510	10	35.4	90	July 16	-42	Dec. 25	10	32.78	5.15	June	1.39	Dec.	89.0	105	170	78	117	nw.
Winslow	Kennebec	90	19	43.6	92	Sept. 22	-25	Dec. 26	19	27.79	5.14	Apr.	0.95	Sept.	48.5	70	193	53	119	w.
New Hampshire.																				
Akistad Center	Cheshire	1,120	10	43.1	89	Aug. 9	-24	Jan. 14	10	31.61	5.35	Aug.	0.37	Sept.	83.0	98	220	60	85	nw.
Benton	Grafton		5		90	Aug. 16			5		11.18	Apr.	0.90	May						nw.
Bethlehem	do	1,470	22	40.1	89	Aug. 10	-34	Jan. 14	22	31.56	6.10	Apr.	0.65	Dec.	64.3	126	178	74	113	w.
Concord	Merrimack	350	54	44.0	93	May 27	-20	Dec. 27	54	33.17	5.91	Apr.	0.21	Sept.	60.4	108	132	100	133	nw.
Durham	Stafford	88	19	45.9	99	May 27	-18	Feb. 12	20	31.06	5.89	Apr.	0.19	Sept.	50.6	94	176	62	127	nw.
Franklin	Merrimack	440	15	44.2	95	May 27	-21	Jan. 14	15	38.39	8.50	Aug.	0.50	Sept.	75.5	117	159	105	101	nw.
Grafton	Grafton	863	28	40.9	90	May 27	-30	Dec. 27	28	32.56	5.14	Aug.	0.97	Sept.	91.0	81	206	61	98	nw.
Hanover	do	603	80	42.5	95	Aug. 10	-29	Jan. 14	74	30.24	5.77	Apr.	1.08	Sept.	66.4	129	102	122	141	ln.
Keene	Cheshire	506	29	43.9	94	Aug. 10	-25	Dec. 27	27	29.47	5.08	Apr.	0.25	Sept.	61.6	102	168	95	102	nw.
Nashua	Hillsboro	125	29	47.5	97	May 27	-18	Dec. 27	29	34.01	5.34	Apr.	0.19	Sept.	65.2	160	119	108	138	nw.
Newton	Rockingham		26	44.3	93	May 26	-19	Feb. 16	26	32.65	7.16	Apr.	0.17	Sept.	42.0	81	138	156	71	nw.
Plymouth	Grafton	500	26	42.1	92	June 24	-26	Dec. 27	27	33.66	6.09	Apr.	0.51	Sept.	79.4	97	184	25	156	w.
Vermont.																				
Bloomfield	Essex		7	39.3	89	May 27	-44	Jan. 14	6	26.50	3.88	Apr.	0.89	May	64.9	137	173	57	135	s.
Burlington	Chittenden	404	7	42.3	94	Aug. 10	-26	Jan. 14	8	22.62	4.27	Apr.	0.41	Feb.	60.9	126	80	128	167	s.
Avondale	Windsor	910	11	42.5	94	June 26	-36	Dec. 26	11	33.41	6.17	Aug.	0.62	Sept.	94.3	78	123	112	130	
Chelsea	Orange	840	19		93	Aug. 10	-34	Jan. 14	19				0.65	May						n.
Greenwald	Addison	517	21						28			Apr.		May						n.
Northbury Falls	Franklin	601	23	41.3	92	July 15	-37	Jan. 14	23	30.45	4.94	Apr.	0.47	Feb.	73.0	132	164	95	106	n.
Lyde Park	Lamoille	576	2	41.3	94	Aug. 10	-35	Feb. 24	2	36.32	6.12	July	0.52	May	126.0	140	133	90	140	lnw.
Lancaster	Bennington	980	15						14											
Northfield	Washington	876	28	39.3	91	Aug. 10	-33	Feb. 24	28	30.08	5.05	Apr.	0.90	May	103.1	139	90	107	167	s.
Ormeroy	Windham	2,096	3		87	Aug. 9	-36	Dec. 26	3		6.10	Apr.	0.91	Sept.						nw.
St. Johnsbury	Caledonia	711	21	42.0	93	Aug. 10	-38	Jan. 14	21	31.06	4.98	Apr.	0.50	May	88.7	140	151	100	114	nw.
Fells	Rutland	750	23	42.8	92	Aug. 10	-27	Jan. 14	23	31.73	7.42	Apr.	1.06	May	61.5	98	113	132	120	s.
Foodstock	Windsor	700	22						22											
Massachusetts.																				
Amherst	Hampshire	222	25	46.4	97	Sept. 22	-19	Dec. 27	25	41.93	6.59	Apr.	0.52	Sept.	56.7	118	151	91	123	nw.
Belmont	Norfolk	640	30	46.5	93	Sept. 23	-14	Feb. 12	30	40.30	5.51	Apr.	0.45	Sept.	60.9	139	129	88	148	lnw.
Boston	Suffolk	124	44	49.7	95	May 27	-11	Feb. 12	44	34.31	5.87	Apr.	0.21	Sept.	42.0	103	117	113	135	lnw.
Westport	do	124	34	48.9	95	May 27	-12	Feb. 12	42	38.99	6.19	Apr.	0.35	Sept.	37.4	115	267	11	87	
Worcester	Worcester	1370	18				-16	Feb. 15	15	42.30	5.61	Mar.	0.25	Sept.	60.9	113				
Concord	Middlesex	139	24	45.7	95	Sept. 23	-17	Dec. 27	24	33.40	4.63	Apr.	0.12	Sept.	60.8	112	117	130	118	nw.
East River	Bristol	200	48	48.8	89	June 25	-9	Feb. 12	48	37.59	5.31	Dec.	0.70	June	40.2	125	105	202	58	sw.
Northampton	Worcester	560	31	46.9	96	Sept. 22	-16	Feb. 12	31	28.41	4.01	Apr.	0.19	Sept.	65.5	105	199	63	103	nw.
Springfield	Middlesex	1500	34	47.9	94	May 27	-14	Feb. 12	38	35.33	4.82	Apr.	0.18	Sept.	46.3	109				
Ware	Barnstable	31	23	48.5	93	May 27	-10	Feb. 12	23	41.22	5.46	Dec.	1.00	Sept.		109	174	112	79	
Ware	Essex	51	30	46.7	95	Sept. 22	-16	Feb. 12	30	33.10	5.36	Apr.	0.18	Sept.	57.6	111	119	186	60	lnw.
Ware	Middlesex	100	29	48.3	91	June 25	-15	Dec. 27	20	36.41	5.90	Apr.	0.13	Sept.		93				
Ware	Plymouth	53	28	46.8	92	May 27	-10	Feb. 12	28	35.81	5.03	Dec.	0.91	June	31.1	111	81	133	151	lnw.
Ware	Nantucket	47	28	48.6	86	Sept. 21	-4	Feb. 12	28	41.04	6.73	Dec.	1.61	Sept.	36.2	122	110	140	115	sw.
Ware	Bristol	88	102	49.2	89	June 11	-8	Feb. 12	100	39.40	5.38	Dec.	0.66	Sept.	33.8	99				
Ware	Norfolk	244	11	45.5	97	June 25	-17	Feb. 25	11	37.96	5.34	Apr.	0.49	Sept.	39.0	80	200	85	80	w.
Ware	Plymouth		29	46.4	92	June 26	-11	Feb. 12	24	44.88	6.30	Dec.	0.86	June	40.7	97	197	62	105	w.
Ware	Barnstable		40	47.8	89	June 11	-8	Feb. 12	28	35.17	5.71	Dec.	0.86	Sept.	35.0	91	210	18	137	sw.
Ware	Essex	25	12	47.1	88	July 18	-13	Feb. 12	12	32.50	5.00	Apr.	0.33	Sept.	20.6	93	118	105	142	sw.
Ware	Worcester	1,160	12		92	Sept. 22	-20	Feb. 12	12				0.13	Sept.						sw.
Ware	Hampden</																			



## Monthly and annual precipitation for the year 1914, with departures from the normal.

	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Annual.	
Stations.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.
Maine.																										
Bar Harbor	4.00	-1.32	1.89	-2.62	4.15	-1.22	3.15	-0.08	1.30	-2.20	.....	.....	2.85	+0.14	.....	.....	0.50	-3.18	.....	.....	3.15	-2.00	1.95	-2.74	.....	.....
Cornish	2.87	-0.67	1.94	-1.79	4.95	+0.63	5.45	+1.89	1.57	-1.89	3.81	+0.18	4.58	+0.39	5.98	+1.64	0.84	-2.78	1.17	-3.02	3.27	-0.95	2.54	-1.09	39.87	-6
Eastport	4.18	+0.34	2.26	-1.36	3.77	-0.51	3.93	+0.99	0.80	-3.00	3.23	-0.01	1.21	-2.21	2.54	-0.72	2.92	-0.05	2.56	-1.29	2.78	-1.30	1.95	-2.02	32.13	-11
Fairfield	1.54	-1.47	1.85	-0.91	3.40	+0.21	4.64	+2.34	0.73	-2.21	1.38	-1.40	0.93	-2.42	3.36	+0.31	0.68	-2.45	1.62	-0.99	1.58	-1.24	1.14	-1.76	22.85	-11
Farmington	2.18	-1.36	1.81	-1.58	5.32	+1.08	4.90	+1.91	1.62	-2.22	2.67	-0.96	2.68	-1.01	4.41	+0.91	1.71	-1.91	2.28	-0.83	3.15	-0.18	2.16	-1.23	34.89	-7
Gardiner	2.38	-1.36	2.55	-0.91	4.09	+0.08	5.26	+1.85	1.93	-1.70	4.23	+1.06	2.58	-0.67	3.77	+0.33	0.67	-2.57	1.92	-2.05	2.10	-1.74	2.24	-1.46	33.72	-9
Greenville	3.39	+0.73	1.82	-1.29	4.15	+1.11	4.51	+1.67	1.70	-1.72	3.34	-0.74	2.62	-1.90	2.90	+0.36	2.68	-0.92	3.07	+0.75	2.10	-0.67	1.50	-1.36	33.78	-4
Houlton	1.95	-0.87	0.90	-1.61	1.20	-1.09	1.27	-0.81	1.20	-1.00	4.05	+0.90	1.31	-1.39	1.01	-1.55	1.35	-1.78	2.21	-0.47	1.50	-0.56	0.80	-1.53	18.75	-11
Lewiston	2.76	-1.33	1.93	-2.06	5.04	+0.51	5.12	+1.80	2.44	-1.02	2.92	-0.64	3.00	-0.65	4.54	+1.28	0.53	-3.00	0.61	-1.54	2.92	-1.05	2.50	-1.54	35.31	-9
Madison	2.72	-1.05	1.32	-1.85	5.54	+1.66	6.42	+2.55	2.41	-1.67	3.23	-1.07	2.38	-1.99	6.76	+3.04	1.76	-2.66	3.77	+0.01	3.53	+0.62	2.19	-1.00	42.03	-3
Millinocket	3.71	-0.07	1.60	-1.47	4.43	+0.93	4.18	+1.06	1.11	-2.05	3.56	+0.27	3.79	+0.14	3.05	-0.08	2.06	-2.44	3.16	-0.09	2.74	-0.60	2.40	-0.62	35.79	-5
North Bridgton	2.53	-1.17	1.47	-2.25	4.65	+0.45	5.12	+1.65	1.52	-2.09	2.74	-1.01	2.70	-1.64	3.70	+0.42	0.58	-3.25	1.63	-1.58	2.99	-0.52	1.96	-1.56	31.59	-12
Orono	4.36	+0.27	2.52	-1.20	2.72	-1.36	4.71	+1.87	1.58	-1.80	3.92	+0.56	2.84	-0.30	3.05	-0.36	3.03	-0.54	3.33	-0.65	1.69	-2.18	1.20	-2.42	34.95	-8
Patten	2.10	-1.50	.....	.....	3.20	.....	1.40	.....	1.00	.....	4.08	.....	.....	.....	1.00	.....	1.90	.....	1.98	.....	2.50	.....	1.20	.....	.....	.....
Portland	3.19	-0.62	3.92	+0.27	4.37	+0.62	4.42	+1.31	2.02	-1.65	2.34	-1.02	3.10	-0.15	3.81	+0.24	0.73	-2.47	2.05	-1.61	3.17	-0.63	2.98	-0.70	36.10	.....
Presque Isle	2.95	-2.70	.....	.....	2.50	.....	4.05	.....	2.74	.....	4.80	.....	.....	.....	2.35	.....	2.10	.....	2.75	.....	3.50	.....	2.10	.....	34.77	.....
Rumford Falls	1.98	-1.20	1.42	-1.97	4.78	+1.28	4.95	+1.92	1.75	-1.74	2.16	-1.26	3.74	-0.22	5.02	+1.84	1.13	-2.23	1.92	-0.97	2.64	-0.66	2.09	-0.82	33.58	-6
Van Buren	1.93	-1.45	.....	.....	1.65	.....	2.64	.....	2.19	.....	5.15	.....	2.63	.....	4.16	.....	4.07	.....	3.43	.....	2.09	.....	1.39	.....	32.78	.....
Winslow	1.44	-1.88	1.34	-1.27	4.00	+0.20	5.14	+2.36	1.12	-2.13	2.07	-1.14	1.07	-2.74	4.88	+1.89	0.95	-2.43	2.49	-0.50	1.52	-1.63	1.77	-1.14	27.79	-10
New Hampshire.																										
Alstead Center	2.04	-0.98	1.31	-2.52	4.05	+0.36	4.92	.....	2.06	-0.60	2.28	.....	3.17	-1.22	5.35	.....	0.37	.....	2.25	-0.70	2.08	-2.44	1.73	-1.14	31.61	-9
Benton	.....	.....	.....	.....	1.95	.....	11.18	.....	0.90	.....	1.94	.....	4.42	.....	3.27	.....	1.58	.....	1.15	.....	3.80	.....	1.81	.....	.....	.....
Bethlehem	1.93	-0.40	1.61	-1.28	3.24	+0.27	6.10	+4.08	1.16	-1.90	3.27	-0.61	3.37	-0.73	4.39	+0.47	2.34	-1.33	1.11	-1.99	2.39	-1.32	0.65	-1.67	31.56	-6
Concord	2.75	-0.59	1.65	-1.63	3.90	+0.50	3.87	+1.08	1.54	-1.70	2.39	-0.95	3.49	-0.38	5.91	+2.17	0.21	-3.00	1.12	-2.12	2.27	-1.12	2.07	-1.28	33.17	-6
Durham	2.48	-1.40	2.21	-1.81	4.22	-0.21	5.89	+3.23	1.22	-1.45	1.42	-1.66	3.27	-0.29	3.46	+0.38	0.19	-4.17	1.32	-2.44	2.24	-2.24	3.14	+0.27	31.06	-11
Franklin	2.67	-0.40	1.81	-1.20	4.67	+1.53	5.76	+2.71	1.53	-1.33	3.08	-0.96	3.26	+0.04	8.50	+5.16	0.50	-3.76	1.27	-1.61	2.45	+0.05	2.89	-0.27	38.39	-0
Grafton	2.65	-0.41	1.65	-1.56	4.92	+1.92	4.82	+2.30	1.39	-2.21	.....	.....	2.59	-1.34	5.14	+1.55	0.97	-2.58	1.16	-1.86	3.28	-0.65	.....	.....	42.56	-6
Hanover	2.31	-0.34	1.72	-0.68	4.35	+1.82	5.77	+4.08	1.82	-0.91	1.90	-1.50	2.67	-0.99	3.62	+2.23	1.08	-1.76	1.17	-1.41	2.29	-0.74	1.54	+0.82	30.24	-3
Keene	2.33	-0.38	1.72	-1.68	4.05	+0.97	4.54	+2.23	1.70	-1.68	2.49	-1.07	2.34	-1.94	5.08	+0.90	0.25	-3.76	1.41	-1.94	1.80	-2.12	1.76	-0.98	29.47	-11
Nashua	2.85	-1.20	3.01	-1.20	4.93	+0.77	5.34	+2.92	1.43	-0.98	1.42	-1.28	4.31	+0.70	3.10	-0.78	0.19	-3.18	1.03	-2.62	2.78	-1.20	2.62	-0.75	34.01	-8
Newton	2.84	-0.86	1.86	-1.74	4.13	+0.53	7.16	+4.75	2.53	-1.10	1.38	-1.60	2.89	-0.72	2.94	-0.21	0.17	-3.42	1.00	-3.26	2.77	-1.40	2.98	+0.13	32.65	-8
Plymouth	2.22	-1.40	1.23	-2.40	4.20	+0.46	6.09	+3.80	1.04	-2.32	3.16	-0.27	4.42	+1.00	4.23	-0.28	0.51	-3.03	1.61	-1.78	2.75	-1.17	2.20	-0.97	33.66	-8
Vermont.																										
Bloomfield	1.37	-0.90	.....	.....	2.52	.....	3.88	.....	0.89	.....	3.07	.....	3.54	.....	3.20	.....	2.99	.....	1.12	.....	1.84	.....	1.18	.....	26.50	.....
Burlington	1.60	-0.46	0.41	-0.96	1.84	+0.01	4.27	+2.40	0.36	-2.47	3.30	+0.04	1.94	+1.84	2.78	-1.23	2.36	-0.99	1.10	-1.06	1.41	-1.17	1.25	-0.44	22.62	-9
Cavendish	2.08	-2.56	.....	.....	3.57	.....	2.84	.....	1.09	.....	2.70	.....	5.47	.....	6.17	.....	0.62	.....	1.60	.....	1.76	.....	2.95	.....	33.41	.....
Chelsea	1.50	-1.61	2.02	-1.46	4.42	+0.67	.....	.....	0.65	-1.99	1.96	-0.43	2.60	-1.54	3.94	+0.67	1.82	-1.19	1.20	-0.63	2.48	-1.70	.....	.....	.....	.....
Cornwall	1.16	-1.52	1.30	-0.86	1.44	-0.86	5.31	+3.75	0.62	-2.12	2.35	-0.98	4.43	+0.90	5.28	+1.55	1.72	-1.20	1.47	-0.79	2.52	-0.74	1.24	-1.02	.....	.....
Enosburg Falls	1.78	-0.89	0.47	-2.55	1.74	-1.31	3.79	+1.55	0.64	-3.13	3.22	-1.33	3.63	-1.77	4.94	+0.80	3.99	+1.00	2.34	-0.47	2.48	-1.27	1.43	-1.54	30.45	-10
Hyde Park	1.90	-1.32	.....	.....	2.58	.....	4.72	.....	0.52	.....	4.36	.....	6.12	.....	5.45	.....	3.36	.....	1.52	.....	2.92	.....	1.55	.....	31.32	.....
Manchester	1.56	-0.59	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Northfield	1.75	-0.74	1.56	-0.70	3.48	+0.69	5.05	+2.96	0.90	-1.90	2.85	-0.40	4.22	+0.52	3.14	-0.79	2.04	-0.72	1.00	-1.48	2.90	+0.30	1.19	-1.52	30.08	-3
Somerset	3.44	.....	.....	.....	6.10	.....	.....	.....	2.35	.....	3.36	.....	3.92	.....	4.64	.....	0.91	.....	2.82	.....	2.94	.....	3.25	.....	.....	.....
St. Johnsbury	1.80	-0.65	2.00	-0.63	2.59	-0.43	4.47	+2.37	0.50	-2.24	3.09	+0.06	4.87	+0.56	4.98	+1.15	2.41	-0.81	0.89	-1.13	2.22	-1.74	1.24	-1.01	31.06	-4
Wells	2.09	-0.60	1.78	-1.21	4.31	-1.23	7.42	+5.54	1.06	-2.30	2.55	-1.06	2.46	-1.90	4.96	-0.17	1.13	-2.49	1.34	-1.21	1.57	-2.17	1.06	-1.28	31.73	-7
Woodstock	2.02	-0.95	1.92	-1.30	4.24	+1.02	6.23	+3.53	1.20	-2.01	2.38	-0.72	6.12	+2.79	.....	.....	0.97	-1.57	2.30	-1.21	2.70	+0.17	.....	.....	.....	.....
Massachusetts.																										
Amherst	3.72	+0.26	3.36	+0.08	5.52	+2.04	6.59	+3.56</																		



Monthly and annual mean temperatures for the Year 1914, with departures from the normal.

	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Annual.	
Stations.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.
Maine.																										
Bar Harbor	19.8	-1.8	16.9	-5.7	30.2	-1.0	36.6	-5.1	54.0	+1.7	64.4	-1.2	66.4	-2.6	66.8	+0.6	62.2	+3.6	52.5	-5.0	35.6	-3.3	23.4	3.4	44.8	+0.2
Cornish	18.2	-1.2	18.0	-3.4	34.6	+5.3	41.8	-1.0	57.3	+2.7	63.0	-2.2	66.4	-2.6	66.8	+0.6	60.5	+1.7	52.5	-5.0	34.6	-1.5	23.0	2.2	44.8	+0.2
Eastport	19.0	-1.1	14.8	-6.6	29.6	+0.7	35.6	-2.7	48.4	+1.5	55.4	+1.0	60.1	+0.3	59.8	+0.1	57.7	+2.5	49.2	+2.6	35.6	-1.2	23.6	-1.7	40.7	0.0
Fairfield	13.0	-2.8	12.4	-5.7	31.0	+3.2	39.5	+0.5	56.0	+1.9	61.0	-2.4	65.6	-2.3	65.0	0.4	60.2	+2.5	50.6	+3.5	35.0	-0.4	19.8	-1.9	42.4	0.0
Farmington	13.6	-1.5	11.2	-6.3	29.2	-1.0	38.6	-3.8	56.4	+2.3	61.0	-1.5	66.0	-1.4	65.1	+0.4	58.6	+0.5	49.5	+1.9	31.4	-1.7	19.8	-2.3	41.7	0.0
Gardiner	18.2	-0.4	13.2	-6.7	31.3	+1.0	39.6	-4.0	55.0	-0.3	60.1	-5.1	64.6	-6.2	64.6	-4.2	59.0	0.8	50.2	+1.0	33.4	-3.3	20.4	3.3	42.5	2.0
Greenville	9.7	...	5.9	...	25.2	...	31.5	...	52.1	...	56.3	...	63.4	...	61.9	...	56.8	...	46.6	...	28.4	...	15.8	...	37.8	...
Houlton	9.2	...	7.4	...	30.0	...	33.2	...	52.8	...	58.1	...	65.4	...	64.0	...	58.8	...	46.9	...	31.8	...	16.9	...	39.5	...
Lewiston	16.3	-1.9	13.4	-6.5	31.0	+2.2	38.9	-2.9	56.0	+1.4	62.0	-2.4	66.4	-3.1	66.2	-0.9	60.7	+1.5	51.4	+4.2	34.1	-1.6	21.2	-2.2	43.1	-1.1
Madison	9.0	...	5.3	...	27.3	...	36.8	...	53.8	...	59.6	...	64.8	...	64.0	...	59.0	...	47.4	...	30.0	...	16.2	...	39.4	...
Millinocket	9.8	...	6.6	...	27.0	...	34.6	...	54.6	...	58.9	...	65.6	...	63.6	...	59.2	...	47.9	...	30.4	...	16.6	...	36.6	...
North Bridgton	17.3	-1.1	16.5	-2.9	31.6	+2.7	40.6	-2.3	57.2	+2.3	62.9	-1.7	67.0	-2.5	67.3	+0.1	65.4	+2.1	52.8	+3.7	34.4	-2.6	21.6	-2.1	44.6	0.0
Orono	15.1	-1.1	11.9	-7.3	30.6	+3.0	40.0	-0.5	56.4	+3.7	60.8	-1.5	65.4	-1.9	66.0	+0.5	60.0	...	50.8	+4.6	38.4	...	24.0	+2.7	43.3	+0.8
Patten	5.4	...	3.0	...	25.8	...	31.7	...	54.2	...	56.2	...	64.4	...	61.0	...	57.8	...	45.4	...	28.4	...	14.6	...	37.3	...
Portland	20.5	-1.5	17.2	-6.6	32.8	+0.8	39.8	-3.2	55.4	+1.9	61.8	-0.8	64.6	-3.4	64.1	-2.1	61.3	+1.7	51.2	+2.1	36.6	-1.0	24.4	-2.7	44.1	-1.3
Presque Isle	3.9	...	1.6	...	25.6	...	31.9	...	53.2	...	56.0	...	63.7	...	60.2	...	55.8	...	44.2	...	27.8	...	14.2	...	36.5	...
Rumford Falls	15.0	-1.5	11.8	-6.4	29.8	+2.3	37.6	-3.8	55.7	+2.0	60.8	-2.8	66.0	-2.3	65.4	-0.3	58.4	+0.6	49.9	+3.2	31.6	-2.5	19.8	-1.7	41.8	-1.1
Van Buren	2.5	...	0.4	...	25.4	...	30.8	...	50.1	...	54.6	...	62.8	...	60.0	...	56.0	...	43.6	...	27.0	...	11.5	...	35.4	...
Winslow	14.4	-3.4	13.2	-5.5	32.6	+2.7	40.8	-0.4	57.2	+3.6	62.9	+0.2	67.2	-1.3	66.9	+1.2	60.8	+1.5	51.4	+3.7	34.3	-0.1	21.4	+0.4	43.6	+0.2
New Hampshire.																										
Alstead Center	18.0	-1.0	14.1	-5.7	29.4	+0.1	39.0	...	57.1	-0.8	61.4	...	65.2	-6.5	65.7	...	58.4	...	51.4	+3.1	34.6	-0.4	22.4	-0.9	43.1	-2.2
Benton	14.3	-1.1	9.3	-8.1	27.5	+1.0	35.9	-4.6	54.2	+0.2	58.4	-5.1	63.8	-3.3	63.4	-0.8	55.2	...	47.6	...	30.4	...	18.4	...	40.1	-1.9
Bethlehem	19.0	-2.2	15.6	-8.0	31.0	+0.4	40.4	-3.4	57.0	+1.3	62.8	-1.6	66.7	-2.4	66.7	+0.1	59.3	+0.2	49.8	+3.6	30.8	-1.8	19.1	-1.5	40.1	-1.6
Concord	21.8	-0.9	18.5	-6.2	34.0	+2.5	42.0	-2.0	57.2	+2.4	63.6	-0.7	66.0	-3.9	66.4	-1.6	61.0	+0.5	53.6	+2.5	35.0	-1.8	22.3	-4.1	44.0	-1.6
Durham	18.4	-2.2	16.2	-6.2	31.8	+0.7	41.0	-2.2	57.4	+1.1	62.7	-0.6	67.2	-2.7	66.9	+1.3	59.8	+0.5	47.7	+3.4	34.4	-1.4	22.1	-1.5	44.2	-0.5
Farmington	15.5	-1.3	12.8	-5.4	28.4	+0.9	38.1	-3.2	53.4	+0.1	62.2	-2.8	66.7	-2.5	67.2	...	58.2	...	49.8	+3.1	31.4	-2.8	...	...	40.9	-1.7
Haverhill	15.0	-1.9	11.8	-7.3	30.0	+2.6	38.7	-2.9	56.3	+0.9	62.2	-2.8	66.7	-2.5	67.2	...	58.2	...	49.8	+3.1	31.4	-2.8	...	...	40.9	-1.7
Keene	19.4	-1.5	15.4	-7.2	31.8	+1.2	41.8	-2.3	56.7	+0.4	62.5	-2.4	67.0	-1.3	67.4	+1.2	57.2	...	49.8	+3.1	31.4	-2.8	...	...	40.9	-1.7
Nashua	23.7	+1.2	19.6	-4.4	35.2	+3.0	44.0	-1.5	60.3	+3.1	66.9	+0.6	69.4	-1.3	70.0	+1.4	62.8	...	54.7	+5.8	38.6	+0.4	25.2	-2.5	47.5	+0.6
Newton	21.3	-1.7	18.0	-6.3	32.3	+0.5	40.6	-3.8	55.8	+0.6	62.2	-2.3	64.8	-4.4	66.0	-1.0	59.2	...	51.0	+2.6	36.4	-1.4	23.6	-4.1	44.3	-1.8
Wilmington	16.4	-1.0	13.0	-4.9	29.8	+2.9	39.2	-2.0	55.2	+1.6	61.3	-2.9	66.0	-1.6	65.2	-0.5	56.8	-0.6	50.1	+5.4	31.8	-0.9	20.0	-2.2	42.1	-0.4
Vermont.																										
Bloomfield	12.4	...	7.2	...	27.2	...	35.2	...	53.0	...	58.0	...	64.2	...	62.6	...	55.2	...	48.7	...	30.8	...	17.6	...	39.3	...
Burlington	14.8	-1.5	10.2	-7.7	28.9	+1.6	38.2	-2.5	57.2	+3.3	62.0	-1.8	66.6	-1.6	66.0	-0.1	58.0	-0.9	50.2	+3.3	33.9	+0.2	21.2	-1.3	42.3	-0.7
Avondale	16.8	...	12.0	...	28.6	...	38.4	...	57.0	...	63.0	...	66.6	...	66.2	...	56.6	...	48.6	...	33.4	...	19.6	...	42.5	...
Chelsea	13.8	-1.2	9.2	-9.6	28.2	+3.2	...	...	54.1	+1.5	60.0	-1.3	65.2	-2.0	64.9	+1.0	55.4	-0.8	48.6	...	33.4	...	...	...	42.5	...
Winooski	17.8	-1.5	12.0	-7.2	29.8	+0.7	39.2	-6.1	...	...	63.5	-3.6	68.4	-2.5	69.2	+1.3	58.4	-2.5	52.9	+3.2	34.2	-1.9	23.2	-2.2	...	...
Enosburg Falls	12.6	-3.5	9.5	-7.5	28.6	+1.2	37.6	-5.1	56.0	+0.4	60.9	-4.3	66.4	-1.2	63.4	-1.2	56.0	-2.0	50.6	+3.3	33.4	-1.1	20.6	-1.7	41.3	-1.9
Lynde Park	13.6	...	9.2	...	27.4	...	37.5	...	55.5	...	60.8	...	66.0	...	64.3	...	57.3	...	50.5	...	32.5	...	21.0	...	41.3	...
Manchester	20.6	...	14.8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Northfield	12.2	-2.9	7.7	-9.5	26.8	+0.6	35.4	-4.8	53.2	-0.3	58.2	-4.5	63.3	-3.3	62.6	-0.3	54.6	...	47.9	+4.3	31.5	-0.5	18.0	-2.5	39.3	-2.0
St. Johnsbury	17.6	...	9.2	...	29.4	+2.9	38.6	-3.2	56.5	+1.4	61.6	-2.4	67.8	-0.3	66.3	+1.9	58.5	+1.1	51.0	+0.6	32.2	-1.1	20.0	-0.7	42.0	-0.5
Windsor	17.2	-1.0	14.2	-4.7	28.2	+0.7	38.2	-3.6	57.0	+1.6	63.2	-2.5	66.8	-2.2	69.8	-0.6	58.0	-0.8	50.2	+2.2	33.2	-1.1	20.6	-1.7	42.8	-1.2
Woodstock	16.6	+1.2	12.6	-4.8	29.8	+2.1	40.2	-1.6	56.0	+1.1	62.8	-2.2	66.5	-1.8	...	...	51.9	+6.1	33.7	-0.1	19.8	-1.7	...	...	...	...
Massachusetts.																										
Amherst	22.5	-1.1	18.0	-6.9	33.8	+1.1	42.6	-2.8	58.8	+1.8	64.5	-1.7	68.6	-1.9	69.8	+1.6	61.0	+0.8	54.4	+5.4	37.8	-0.5	24.6	-2.7	46.4	-0.5
Blue Hill	25.4	+0.4	21.0	-4.6	33.2	+0.9	42.3	-2.2	58.1	+2.6	63.8	+0.5	65.0	...	66.9	-0.5	62.1	+1.1	54.1	+4.6	39.2	-0.5	27.2	-2.6	46.5	-0.5
Boston	28.7	+1.7	24.3	-3.7	36.7	+1.7	45.3	0.0	60.3	+3.2	67.3	+1.5	68.6	-2.7	70.4	+0.5	64.6	+1.9	57.0	+4.7	42.7	+1.5	30.4	-1.2	49.7	-1.1
Chestnut Hill	27.2	+0.8	23.0	-4.3	45.7	+1.4	45.4	-1.2	60.0	+2.1	66.6	-0.3	68.4	-3.2	69.6	0.0	63.4	+0.5	56.4	+5.7	41.8	-0.5	29.0	-1.4	48.9	+0.1
Dorchester	23.4	...	18.3	...	33.0	...	...	...	...	...	64.5	...	67.1	...	68.3	...	61.2	...	53.9	...	38.8	...	...	...	...	...
Concord	23.6	-0.2	18.6	-5.0	33.8	-0.4	42.4	-2.7	58.0	+2.2	63.6	-0.8	66.6	-3.1	67.8	+0.4	59.2	-1.8	52.6	+3						



## Monthly maximum temperatures for the year 1914, with dates.

	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
Stations.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.
Maine.																								
Bar Harbor	50	30	50	28	55	27	78	19	92	27	93	24	84	15	90	11	92	23	84	4	62	4	58	1
Cornish	57	30	58	28	69	27	84	19	93	27	86	11	83	14	77	16	81	22	76	3	58	1	53	1
Eastport	49	30	43	7	49	27	64	19	87	27	87	10†	85	8†	81	2†	88	22†	78	5	66	4	58	1
Fairfield	48	25†	46	23	56	26	79	19	90	21	92	24	90	14	88	11	89	22†	78	3†	63	1	50	1
Farmington	46	30	45	28	53	26	79	19	90	26	88	24	86	18	84	8	91	23	79	4	67	1	54	1
Gardiner	50	30	48	28	60	27	72	19	87	27	86	24	88	14†	83	7	89	23	76	4	59	1	53	1
Greenville	40	30	47	28	55	26	72	19	90	26	88	25	89	15	88	10	95	23	78	5	55	16	48	1
Houlton	42	30	44	28	48	27	65	19	90	26	89	24	87	17†	86	8†	94	22†	80	4†	70	1	52	1
Lewiston	49	30	46	28	61	26	81	19	90	27	94	25	91	15	86	9†	91	24	78	4†	62	2	51	1
Madison	49	31	42	5	54	27	79	20	91	27	90	24	91	15	86	10†	91	22†	79	5	58	15	52	1
Millinocket	42	30	46	28	48	26	70	19	90	27	93	24	90	13†	89	11	96	22	85	5	73	1	60	1
North Bridgton	52	30	51	4†	63	27	81	19	90	27	88	25†	89	15	85	6	91	2	78	4†	66	17	62	1
Orono	47	30†	45	28	50	27	75	20	88	27†	91†	24	90†	3†	86	6	92†	22†	84†	3	57†	16	57†	1
Patten	44	30	45	28	60	28	67	18	91*	27	91†	24	90	18	81	15	92	22	81	5	72	1	56	1
Portland	53	30	50	4	59	27	77	19	90	26	90	11	90	14†	87	7†	90	22†	80	3	59	2	49	1
Presque Isle	43	30	45	28	58	27	66	19	89	27	89	10†	88	17	88	11	90	23	76	5	64	1	52	1
Rumford Falls	44	30	43	4	52	26	75	19	89	26	87	24	90	16	88	7	89	22	79	3	51	1	48	1
Van Buren	42	30	43	28	55	26	67	19	85	26	87	24	90	16	88	7	89	22	79	3	51	1	48	1
Winslow	49	30	46	28	56	27	80	19	91	26	90	24	90	15	87	11	92	22	80	4†	65	1	60	1
New Hampshire.																								
Alstead Center	44	30	45	28	59	27	79	19	88	26†	88	24	85	17	89	9†	88	22	74	3†	67	1	57	1
Benton	48	30	47	28	56	27	76	20	85	25	86	24	84	15	90	10	87	22†	76	4†	66	1	52	1
Bethlehem	48	30	47	28	54	26	76	19	85	27	87	24	87	15	89	10	87	23	76	10	66	1	53	1
Concord	50	30	47	4	64	26	82	19	93	27	92	24	89	17	91	10	92	22	81	4	73	1	56	1
Durham	54	30	51	4	68	27	85	19	99	27	95	10†	90	17	89	8	96	23	87	5	76	1	66	1
Franklin	47	30	50	28	62	26	82	19	90	27	90	24	89	13	90	10	91	22	84	5	75	1	56	1
Grafton	45	30	49	28	59	26	83	19	90	27	93	24	90	17	95	10	93	22	83	9	71	1	56	1
Hanover	47	30	50	28	61	26	83	19	92	27	92	24	90	17	94	10	91	22	80	11	72	1	61	1
Keene	49	28	50	28	67	27	86	19	97	27	96	24†	91	17†	95	10	97	22	85	3	75	1	61	1
Nashua	54	30	52	4	71	27	87	19	93	26	91	24†	87	17†	89	9†	93	23	80	3	73	1	61	1
Newton	54	30	52	4	68	27	86	19	93	26†	92	24	90	17	88	8	88	22	76	5	67	1	52	1
Plymouth	45	30	45	28	59	26	81	19	88	26†	92	24	90	17	88	8	88	22	76	5	67	1	52	1
Vermont.																								
Bloomfield	44	30	47	28	54	26	74	19	89	27	89	24	88	15	89	10	88	22†	77	4†	63	1	55	1
Burlington	44	30	45	28	56	26	80	19	90	27	90	24	88	17	94	10	89	21	76	5	65	1	54	1
Cavendish	47	30	48	28	59	26	79	19	93	27	94	26	93	18	94	10	89	22	78	4	69	1	52	1
Chelsea	45	30	47	28	56	26	79	19	90	27	91	24	87	15†	93	10	87	22†	78	9	67	1	63	1
Cornwall	45	31	45	28	54	27	82	19	90	27	90	24	92	15	92	10	88	22	80	4	67	1	62	1
Enosburg Falls	48	30	50	28	59	26	79	19	90	27	92†	24	91	15	94	10	92	22	81	4	71	1	63	1
Hyde Park	51	30	52	28	59	26	79	19	89	27	92†	24	91	15	94	10	92	22	81	4	71	1	63	1
Manchester	49	30	49	28	59	26	79	19	89	27	92†	24	91	15	94	10	92	22	81	4	71	1	63	1
Northfield	56	30	47	28	58	26	78	19	87	27	88	24	85	17	91	10	89	22	77	4†	69	1	57	1
Somerset	47	30	47	28	58	26	75	19	85	27	84	24	83	17	87	9	87	22	77	4†	69	1	53	1
St. Johnsbury	42	30	48	28	57	26	78	19†	89	27	91	24	90	15	93	10	90	22†	78	4†	61	1	55	1
Wells	42	29	42	4†	52	16†	75	19	88	27	90	24	90	14	92	10	84	2	74	10†	63	4	58	1
Woodstock	48	30	45	4†	63	27	83	19	90	27	90	23	89	17	90	10	84	2	77	10	66	1	55	1
Massachusetts.																								
Amherst	52	28	47	27	69	27	84	19	91	27	91	24	89	13	95	9	97	22	85	3	72	1	59	1
Blue Hill	60	30	50	4	69	27	83	19	92	27	91	25	85	16	88	10	93	23	78	3†	70	1	58	1
Boston	63	30	56	4	74	27†	87	19	95	27	94	25	90	18	90	10	94	23	83	3	74	1	62	1
Chestnut Hill	60	30	52	4	72	27†	87	19	95	27	93	24†	89	18	92	10	95	23	83	11	73	1	60	1
Clinton	55	30	53	4	64	27	85	19	92	27	89	25	85	16†	89	9	92	23	80	3	69	4	62	1
Concord	58	30	51	4	73	27	85	19	92	27	92	25	88	17	92	10	95	23	82	3	74	1	62	1
Fall River	58	30†	54	4	63	27	73	19	87	27	89	25	84	18†	85	9	86	21	77	10	66	4	60	1
Fitchburg	52	30	52	28	70	27	85	19	95	27	93	25	88	13†	93	9†	96	22†	85	4	73	1	64	1
Framingham	60	30	51	4	72	27	85	19	94	27	93	24†	85	11	84	15	84	19	85	22	72	3†	68	1
Hyannis*	52	28	56	4	51	27	61	19	93	27	85	11	84	15	84	10	95	22	82	3	71	1	61	1
Lawrence	55	30	52	4	71	27	86	19	94	27	93	24†	89	17†	90	10†	91	23†	82	3†	69	1†	59	1
Lowell	53	30	50	4	65	26†	82	19†	89	27	92	25	87	18	88	9	91	22	80	3	72	1	63	1
Middleboro	63	30	56	4	64	27	80	19	92	27	92	25	81	26	84	19	86	21	74	4	63	1	56	1
Nantucket	51	31	50	7	52	16	60	8	77	28	82	11	81	26	84	24	85	21	73	3	63	1†	61	1
New Bedford	59	30	51	4	58	27	64	19	87	27	89	11	88	17	84	24	85	21	73	3				



Monthly minimum temperatures for the Year 1914, with dates.

	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		
Stations.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	
Maine.																									
Bar Harbor	-15	14	-20	18	4		10	15	2	30	16		43	5			31	28			11		-12	26	
Barnstable	-19	23	-25	16	5	5	21	16	14	26	11	35	6	45	4	37	26	25	29	16	28	11	24	-31	26
Barnstable	-16	30	-23	12	8	21	16	3	29	2	39	9	47	21	46	26	35	28	24	28	12	18	-11	26	
Barnstable	-25	23	-25	16	5	12	15	4	26	1	40	3	44	41	42	29	29	29	24	14	8	24	-26	26	
Barnstable	-20	1	-23	12	3	13	13	4	29	1	37	2	43	31	35	26	23	29	20	28	2	23	-18	27	
Barnstable	-22	23	-27	16	6	13	16	14	29	1	40	9	44	22	40	26	26	29	18	28	6	23	-26	26	
Barnstable	-25	13	-29	12	-2	12	-3	13	23	1	32	4	41	22	42	26	28	29	16	28	2	19	-19	27	
Barnstable	-29	1	-29	11	4	13	-2	3	26	1	28	4	45	5	39	26	25	30	15	28	4	23	-30	25	
Barnstable	-15	23	-20	12	11	13	20	13	33	1	44	7	49	21	44	26	30	29	22	28	13	23	-14	27	
Barnstable	-29	23	-30	16	1	14	10	4	27	1	40	4	45	4	35	26	26	30	20	28	8	19	-28	27	
Barnstable	-26	1	-27	24	-3	13	0	4	26	16	28	4	43	30	40	26	27	29	20	28	5	19	-24	25	
Barnstable	-17	23	-19	12	4	12	14	4	27	16	39	7	44	4	42	26	29	29	18	28	3	14	-20	26	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
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Barnstable	-22	23	-24	16	4	13	14	3	27	1	34	9	42	4	38	26	23	29	19	28	6	19	-17	24	
Barnstable	-22	23	-24	16																					



**Observation and Forecast Display Stations.**

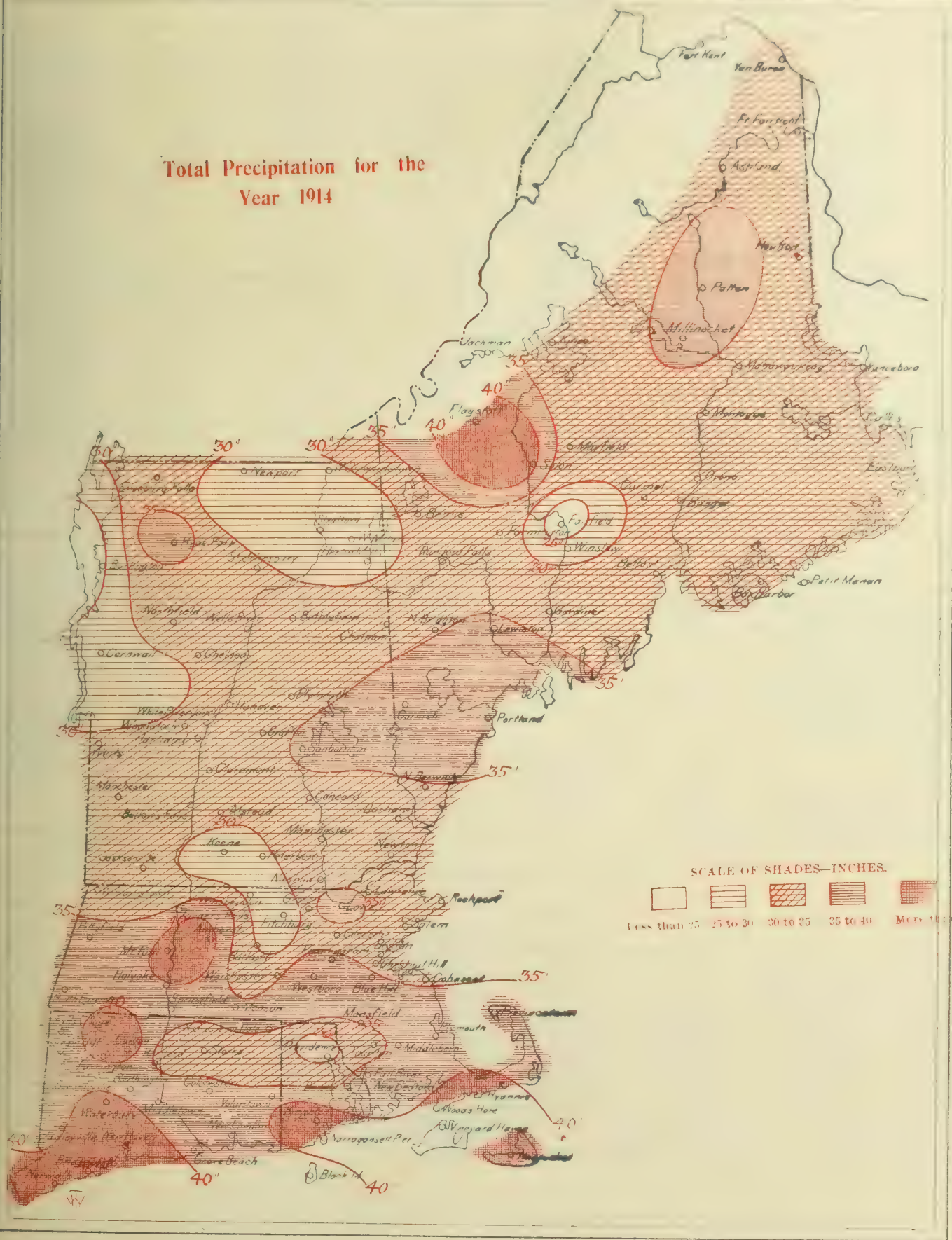
**KEY TO SYMBOLS.**

- Meteorological observations. (Regular Weather Bureau stations.)
- Meteorological observations. (Sub-stations.)
- △ Display or distribution of forecasts.

- ⊙ Meteorological observations. (Regular Weather Bureau stations.)
- Meteorological observations. (Sub-stations.)
- △ Display or distribution of forecasts.



# Total Precipitation for the Year 1914





## COOPERATIVE OBSERVERS.

Station.	Observer.	Station.	Observer.	Station.	Observer.	Station.	Observer.
<b>NEW BRUNSWICK.</b>		Concord .....	U. S. Weather Bureau	Boylston .....	Met. Water Board.	Winchendon .....	John Gregory.
St. John .....	Wm. Murdock.	Durham .....	Agr. Exper. Station.	Brockton .....	City Engineer.	Worcester .....	G. W. Swan.
<b>MAINE.</b>		Franklin .....	Dr. C. P. Webster.	Chestnut Hill .....	Met. Water Board.	<b>RHODE ISLAND.</b>	
Ashland .....	F. R. Coburn.	Grafton .....	P. R. Kimball.	Clinton .....	Met. Water Board.	Block Island .....	U. S. Weather Bureau
Bar Harbor .....	Wm. Miller.	Hanover .....	Dartmouth College.	Concord .....	F. A. Tower.	Bristol .....	N. G. Herreshoff.
Cambridge .....	J. D. Ring.	Keene .....	Samuel Wadsworth.	Fall River .....	C. V. S. Remington.	Greene .....	A. K. Greene.
Cornish .....	T. H. West.	Nashua .....	Jackson Co.	Fitchburg (a) .....	Dr. A. P. Mason.	Hope Valley .....	H. A. Spencer.
Danforth .....	Ed. Huff.	Newton .....	W. C. Gale.	Fitchburg (b) .....	Met. Water Board.	Kingston .....	Nathaniel Helme.
Eastport .....	U. S. Weather Bureau	Plymouth .....	Mrs. Hattie G. Trow.	Haverhill .....	City Engineer.	Narragansett Pier .....	U. S. Weather Bureau
Eustis .....	F. L. Porter.	<b>VERMONT.</b>		Hingham .....	H. W. Cushing.	Pawtucket .....	A. H. Keene.
Fairfield .....	E. F. Parker.	Bloomfield .....	L. F. Power Co.	Hobbs Brook .....	Cambridge W. Works.	Providence (a) .....	City Engineer.
Farmington .....	W. G. Mallett.	Burlington .....	U. S. Weather Bureau	Hyannis .....	C. F. Sleeper.	Providence (b) .....	U. S. Weather Bureau
Gardiner .....	Samuel D. Soule.	Cavendish .....	Colonial Power Co.	Lake Cochituate .....	Met. Water Board.	Wallum Lake .....	State Sanatorium.
Greenville .....	U. S. Weather Bureau	Chelsea .....	W. F. Dewey.	Lawrence .....	Essex Co.	<b>CONNECTICUT.</b>	
Houlton .....	B. & A. RR.	Cornwall .....	C. H. Lane.	Leominster .....	W. H. Hosmer.	Bridgeport .....	Wm. Jennings.
Howe Brook .....	B. & A. RR.	Enosburg Falls .....	J. W. Pomeroy.	Lowell (a, b) .....	Prop. Locks & Canals.	Canton .....	G. J. Case.
Lewiston .....	Union Water Po'r Co.	Hyde Park .....	A. V. Wiswell.	Middleboro .....	A. R. Gurney.	Colchester .....	S. P. Willard.
Madison .....	Wm. Jardine.	Manchester .....	N. M. Canfield.	Nantucket .....	U. S. Weather Bureau	Cream Hill .....	C. L. Gold.
Millinocket .....	Great N'ern Paper Co.	Northfield .....	U. S. Weather Bureau	New Bedford .....	City Engineer.	Danielson .....	F. E. Bitgood.
North Bridgton .....	G. E. Chadbourne.	Norwich .....	C. W. Brown.	Norfolk .....	Miss Ruby H. Martyn.	Falls Village .....	M. H. Dean.
Oquossoc .....	Me. State Fish Hat'y.	Somerset .....	Power Construc'n Co.	Plymouth .....	Miss L. B. Knapp.	Hartford .....	U. S. Weather Bureau
Orono .....	Agr. Exper. Station.	St. Johnsbury .....	Fairbanks Museum.	Princeton .....	Met. Water Board.	Hawleyville .....	C. B. Hawley.
Patten .....	B. & A. RR.	Vernon .....	Conn. River Power Co.	Provincetown .....	Gideon Bowley.	Lake Konomoc .....	N. London W. Works.
Portland .....	U. S. Weather Bureau	Wells .....	E. R. Pember.	Rockport .....	C. F. P. Bearse.	New Haven .....	U. S. Weather Bureau
Presque Isle .....	E. M. Libby.	Woodstock .....	John S. Eaton.	Roberts Dam .....	Cambridge W. Works.	New London .....	T. C. Dillon.
Rumford Falls .....	C. A. Mixer.	<b>MASSACHUSETTS.</b>		Rutland .....	State Sanatorium.	N. Grosvenor Dale .....	Grosvenor-Dale Co.
The Forks .....	W. W. Young.	Amherst .....	Hatch Exp. Station.	Spot Pond .....	Water Works.	Norwalk .....	G. C. Comstock.
Van Buren .....	Rev. J. M. Thomas.	Ashland .....	Met. Water Board.	Somerset .....	Elisha Slade.	Southington .....	L. Andrews.
Winslow .....	H. & W. Co.	Baker's Bridge .....	J. E. Baker.	Sterling .....	U. S. Armory.	Storrs .....	Agr. Exper. Station.
<b>NEW HAMPSHIRE.</b>		Bedford .....	C. W. Jenks.	Springfield .....	Taunton W'r Works.	Torrington .....	Prof. E. H. Forbes.
Alstead Center .....	Frank Dewing.	Boston .....	U. S. Weather Bureau	Taunton .....	Turners Falls Co.	Voluntown .....	J. L. Herbert.
Benton .....	State Sanatorium.	Blue Hill .....	Blue Hill Observatory	Westboro .....	G. S. Newcomb.	Wallingford .....	W. R. Gilbert.
Bethlehem .....	Benjamin Tucker.			Williamstown .....	Williams College.	Waterbury .....	N. J. Welton.
Brookline .....	G. W. Bridges.						

## DISPLAYMEN.

Station.	Displayman.	Station.	Displayman.	Station.	Displayman.	Station.	Displayman.
<b>MAINE.</b>		*Portsmouth .....	E. M. Fisher.	*Fall River .....	Wm. Durfee.	<b>RHODE ISLAND.</b>	
Augusta .....	Custodian U. S. P. O.	*Rye Beach .....	U. S. L. S. S.	*Gloucester .....	R. E. Geary.	*Block Island .....	U. S. Weather Bureau
*Booth Bay Harbor .....	C. H. McCobb.	Sunapee .....	Emerson Paper Co.	*Highland Light .....	I. M. Small.	*Narragansett Pier .....	U. S. Weather Bureau
*Eastport .....	U. S. Weather Bureau	*Seaveys Island .....	U. S. N., Portsmouth.	Holyoke .....	O. C. Ferry.	Naval Torpedo Sta't .....	G. L. Ferrin.
Farmington .....	W. G. Mallett.	*Wallis Sands .....	U. S. L. S. S.	*Hull .....	W. S. Richardson.	*Newport .....	U. S. L. S. S.
*Isle of Shoals .....	U. S. L. S. S.	<b>VERMONT.</b>		*Hyannis .....	S. C. Fuller.	*Point Judith .....	U. S. Weather Bureau
Lewiston .....	D. F. Thompson.	Burlington .....	U. S. Weather Bureau	*Marblehead .....	Girdler Stacey.	*Providence .....	R. I. Yacht Club.
*Machiasport .....	W. C. Hanson.	Northfield .....	U. S. Weather Bureau	*Monomoy .....	U. S. L. S. S.	*Providence .....	Hose Co. 20.
*Marshall Point Lt .....	A. P. Skinner.	<b>MASSACHUSETTS.</b>		*Nantucket .....	U. S. Weather Bureau	*Saunderstown .....	J. L. Eaton.
*Portland .....	U. S. Weather Bureau	Amherst .....	Hatch Exp. Station.	*Nantucket S. S. Light-ship .....	U. S. N., Nantucket.	*Southeast Light .....	M. A. Clark.
*Vinalhaven .....	T. E. Libby.	Ashland .....	U. S. Weather Bureau	*New Bedford .....	Wm. A. Coe.	<b>CONNECTICUT.</b>	
*West Quoddy Lt .....	C. M. Gupfill.	*Boston .....	U. S. Weather Bureau	*Newburyport .....	L. B. Bessee.	*Bridgeport .....	T. J. Keegan.
*White Head Isl'd .....	Ida E. Shea.	*Chatham .....	E. C. Nickerson.	*Nobbs Light .....	Alfred Nickerson.	*Greenwich .....	Yacht Club.
<b>NEW HAMPSHIRE.</b>		*Cuttyhunk .....	U. S. L. S. S.	North Plymouth .....	Plymouth Cordage Co.	*New Haven .....	U. S. Weather Bureau
Claremont .....	C. H. Weed & Co.	*East Chop .....	Hiram Daggett.	*Provincetown .....	M. A. Bowley.	*New Haven Light .....	Albert Widman.
Durham .....	Agr. Exper. Station.			*Race Point .....	U. S. L. S. S.	*New London .....	T. C. Dillon.
*Portsmouth Har'r .....	U. S. L. S. S.			*Rockport .....	U. S. L. S. S.	Torrington .....	Prof. E. H. Forbes.
				*Tarpaulin Cove .....	E. Creemer.	*Stonington .....	J. N. Fuller.
				*Wellfleet .....	F. A. Snow.	*Fisher's Is'd, N.Y. .....	Fort H. G. Wright.

NOTE.—Wireless stations at Boston Navy-yard, Highland Light, Newport Torpedo Station, also repeat to vessels in addition to the wireless stations displaying warnings.  
 \* Stations displaying storm warnings. † Government wireless stations.

## FORECAST DISTRIBUTING CENTERS.

Station.	Distributor.	Station.	Distributor.	Station.	Distributor.	Station.	Distributor.
<b>MAINE.</b>		North Conway-50 .....	Postmaster.	White River J'ct-96 .....	Postmaster.	<b>RHODE ISLAND.</b>	
Auburn-18 .....	Do.	Peterboro .....	Do.	Wilmington-92 .....	Do.	Block Island-40 .....	U. S. Weather Bureau
Augusta-99 .....	U. S. Weather Bureau	Tilton-5 .....	Do.	<b>MASSACHUSETTS.</b>		Narragansett Pier .....	Do.
Eastport-197 .....	Maine Tel. & Tel. Co.	Tilton-208 .....	Citizens Tele. Co.	Boston-3247-2170 .....	U. S. Weather Bureau	Providence-759 .....	Do.
Farmington-600 .....	Postmaster.	<b>VERMONT.</b>		Fall River-179 .....	Postmaster.	<b>CONNECTICUT.</b>	
Houlton-27 .....	Aroostook Co. Tele. Co.	Brattleboro-331 .....	Postmaster.	Gardner-59 .....	Do.	Hartford-1373-145 .....	U. S. Weather Bureau
Portland-283 .....	U. S. Weather Bureau	Enosburg Falls-1430 .....	U. S. Weather Bureau	Greenfield-52 .....	Do.	New Haven-1022 .....	U. S. Weather Bureau
<b>NEW HAMPSHIRE.</b>		Ludlow-300 .....	Northern Tele. Co.	Holyoke-67 .....	O. C. Ferry.	Norwich-98 .....	Postmaster.
Concord-341 .....	Henniker Tele. Co.	Northfield-78 .....	Ludlow Tele. Co.	Nantucket-25 .....	U. S. Weather Bureau	Sharon-339 .....	Sharon Tele. Co.
Henniker-170 .....	Postmaster.	Readsboro-103 .....	U. S. Weather Bureau	Pittsfield-216 .....	Heath Tele. Co.	Torrington-8 .....	Postmaster.
Keene-87 .....	Do.	Springfield-150 .....	Springfield Local	Shelb'ne Falls-1589 .....	Tele. Co.	Wash'n Depot-50 .....	Do.
Laconia-19 .....	Do.		Do.	Vineyard Haven-6 .....	Martha's Vineyard	Winsted-21 .....	Do.
Manchester-216 .....	P. A. Ellworth Mere-	St. Albans-50 .....	Postmaster.	Worcester-184 .....	Tele. Co.		
Meredith-344 .....	dith Tele. Co.	St. Johnsbury-119 .....	Do.		Postmaster.		

Figures indicate number of forecast cards mailed daily from distributing center.

\* Number of Weather Maps mailed daily.



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U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU

CHARLES F. MARVIN, CHIEF

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U. S.  
DEPARTMENT OF AGRICULTURE  
2-3 FEB 1915

# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

JANUARY, 1915

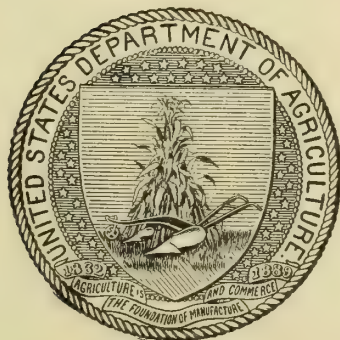
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BY

JOHN W. SMITH

DISTRICT FORECASTER AND SECTION DIRECTOR

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
FEBRUARY 18, 1915



This is a historical map of the Pacific Northwest coast of North America. The map shows the coastline from the Gulf of Alaska in the north to the Strait of Juan de Fuca in the south. A grid of latitude and longitude lines is overlaid on the map. A prominent red line, which appears to be a survey track or a specific boundary, winds through the coastal waters. The line starts near the Gulf of Alaska, moves south along the coast, then turns inland towards the mouth of the Columbia River, and continues south along the coast. Various geographical features are labeled, including 'Gulf of Alaska', 'Columbia River', 'Strait of Juan de Fuca', and numerous smaller bays and rivers. The map is oriented with North at the top.



U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

# NEW ENGLAND SECTION.

J. W. SMITH, District Forecaster and Section Director.

XXVII. BOSTON, MASS., JANUARY, 1915. No. 1.

## GENERAL SUMMARY.

The weather during the month was mild for the season, with comparatively few days of mean temperature below normal. Minima near or below zero were fairly general in the northern part on the 4th and 5th, and again on the 30th and 31st. During the remainder of the month and in the southern portion of the section, temperature near or below zero occurred only at scattered stations. The average precipitation for the section, with one exception, was the greatest for any January of record. The greatest amounts were in the southern portion of the section, where few stations received less than five inches and several more than ten inches. In the northern states the precipitation was but little above the normal. The snowfall was moderate, only a few inches falling at anytime. In the southern portion of the section the ground was generally covered during the first and third decades with depths from a trace to 2 or 3 inches. In the northern portion it was covered through the month, the depth varying from a trace to a few inches at the middle, to between 6 and 18 inches at the end of the month.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 15 stations reporting, was 30.11 inches, and 0.06 inch above the normal for the month. The highest monthly mean was 30.14 inches, at Portland, Me., and Concord, N. H.; the lowest, 30.08 inches, at Fall River, Mass. The highest recorded was 30.60 inches, at Portland, Me., Burlington and Northfield, Vt., on the 24th; the lowest, 29.01 inches, at Nantucket, Mass., on the 13th. The monthly range for the section was 1.59 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 15 stations, was 25.8°, which was 4.7° above the mean for January, 1914. The mean departure from the normal for 62 years having ten or more years' record was +4.2°. The average January temperature since 1888, as compared with the present year, has been higher in 5 and lower in 22 years. The highest January average temperature during this period was 32.1°, in 1913; the lowest, 15.0°, in 1904. The average temperature of the several states of the section, was as follows: Maine, 19.4°; New Hampshire, 24.5°; Vermont, 20.1°; Massachusetts, 30.1°; Rhode Island, 31.9°; Connecticut, 28.1°. The departures from the normal were as follows: Maine, +4.0°; New Hampshire, +4.4°; Vermont, +5.0°; Massachusetts, +4.3°; Rhode Island, +3.1°; Connecticut, +4.2°. The greatest monthly mean was 35.6°, at Nantucket, Mass.; the lowest, 12.7°, at Van Buren, Me. The highest recorded was 41° at Cornish, Me., on the 7th; the lowest, -38°, at Bloomfield, Vt., on the 30th. The range for the section was 100°. The greatest local monthly range was 89°, at Bloomfield, Vt.; the least, 38°, at Nantucket, Mass. The greatest daily range was 44° at Patten, Me., on the 12th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 15 stations reporting, was 63 per cent, which was 2 per cent above the normal for the month. The highest monthly average was 87 per cent, at Northfield, Vt.; the lowest, 68 per cent, at Fall River, Mass.

## PRECIPITATION.

The average for the section, as shown by the records of 84 stations, was 5.32 inches, which was 2.39 inches above the average for January, 1914. The average precipitation in January in other years since 1888, has been greater in 1 and less in 26 years. The greatest January average during this period was 6.83 inches, in 1891; the least, 1.68 inches, in 1896. The average for the several states was as follows: Maine, 3.51 inches; New Hampshire, 3.70; Vermont, 2.90; Massachusetts, 6.62; Rhode Island, 9.12; Connecticut, 7.32. For the section as a whole, the precipitation was 1.74 inches above the normal for the month. The departures from the normal for the several states were as follows: Maine, +0.47 inches; New Hampshire, +0.43; Vermont, -0.34; Massachusetts, +2.64; Rhode Island, +4.68; Connecticut, +3.34. The greatest monthly amount was 11.43 inches, at Kingston, R. I.; the least, 1.16 inches, at Burlington, Vt. The greatest amount in 24 hours was 3.85 inches, at Kingston, R. I., on the 18th. The average snowfall for the section was 12.1 inches, which was 2.7 inches below the normal, as determined from the records of the past 28 years. The average amount in the several states was as follows: Maine, 15.9 inches; New Hampshire, 13.5; Vermont, 15.6; Massachusetts, 8.4; Rhode Island, 8.7; Connecticut, 8.5. The average number of days with .01 inch or more of precipitation was 12, 1 greater than the normal number for the month.

## WIND.

The prevailing direction of the wind was from the northwest, which is the normal direction for the month. The average monthly wind movement for the section, 15 stations reporting, was 7,943 miles. The average hourly velocity was 10.7 miles, which was 1.2 mile below the normal for the month, as determined from the records of the past 28 years, and the lowest for any January since 1907. The greatest monthly wind movement was 14,123 miles, at Block Island, R. I.; the least, 3,245 miles, at Concord, N. H. The highest velocity recorded was 78 miles per hour from the northeast, at Nantucket, Mass., on the 13th. This is somewhat greater than the average January maximum velocity.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 11; partly cloudy, 7; cloudy, 13. The normal for month is 10 clear, 8 partly cloudy, and 13 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having selfrecording instruments, was 44, which was normal. The greatest percentage of possible sunshine in any January since the beginning of the automatic records in 1894, was 56, in 1896; the least, 34, in 1909. The greatest percentage of possible sunshine at any station was 56, at Portland, Me.; the least, 37, at Northfield, Vt.

## DATES OF MISCELLANEOUS PHENOMENA.

*Halos, Solar.*—Cornish, Me., 11, 14; North Bridgton, Me., 29; Grafton, N. H., 24; Northfield, Vt., 3, 4, 14, 22, 24, 29; Blue Hill, Mass., 4, 9, 11, 14; Boston, Mass., 4, 9, 11, 14, 17; Somerset, Mass., 9, 14; New Haven, Conn., 14, 16.

*Halos, Lunar.*—Cornish, Me., 22; North Bridgton, Me., 22; Bethlehem, N. H., 1, 22, 24; Enosburg Falls, Vt., 1, 4, 5, 6, 22; Northfield, Vt., 22, 24, 29; Blue Hill, Mass., 1, 3, 4, 11, 25, 30, 31; Boston, Mass., 3; Rutland, Mass., 1; Somerset, Mass., 6, 25; Block Island, R. I., 6, 30; New Haven, Conn., 4, 27.

*Thunderstorms.*—None.



## Temperature, in degrees Fahr. | Precipitation, in inches.

The departures from normal temperature and precipitation are computed only for such stations as have ten or more years of record, but all complete reports are used in determining section or division means. Reference letters, <sup>a</sup>, <sup>b</sup>, <sup>c</sup>, appearing in the table indicate number of days missing; for example, <sup>b</sup> represents two days, <sup>c</sup> three days, and so on.  
<sup>1</sup> Also on other dates. \*Received too late to be included in means and summaries. \*\*Temperature data are from observed readings of the dry bulb; means <sup>a</sup> computed from observed readings. T. Precipitation is less than 0.01 inch rain or melted snow. † Thermometers not supplied by Weather Bureau.  
 †† Post-office addresses of these stations are as follows: Cornwall, Middlebury, Vt.; Blue Hill, Hyde Park, Mass.; Cream Hill, W. Cornwall, Conn.; Canton, Collinsville, Conn.



Daily Precipitation for January, 1915.

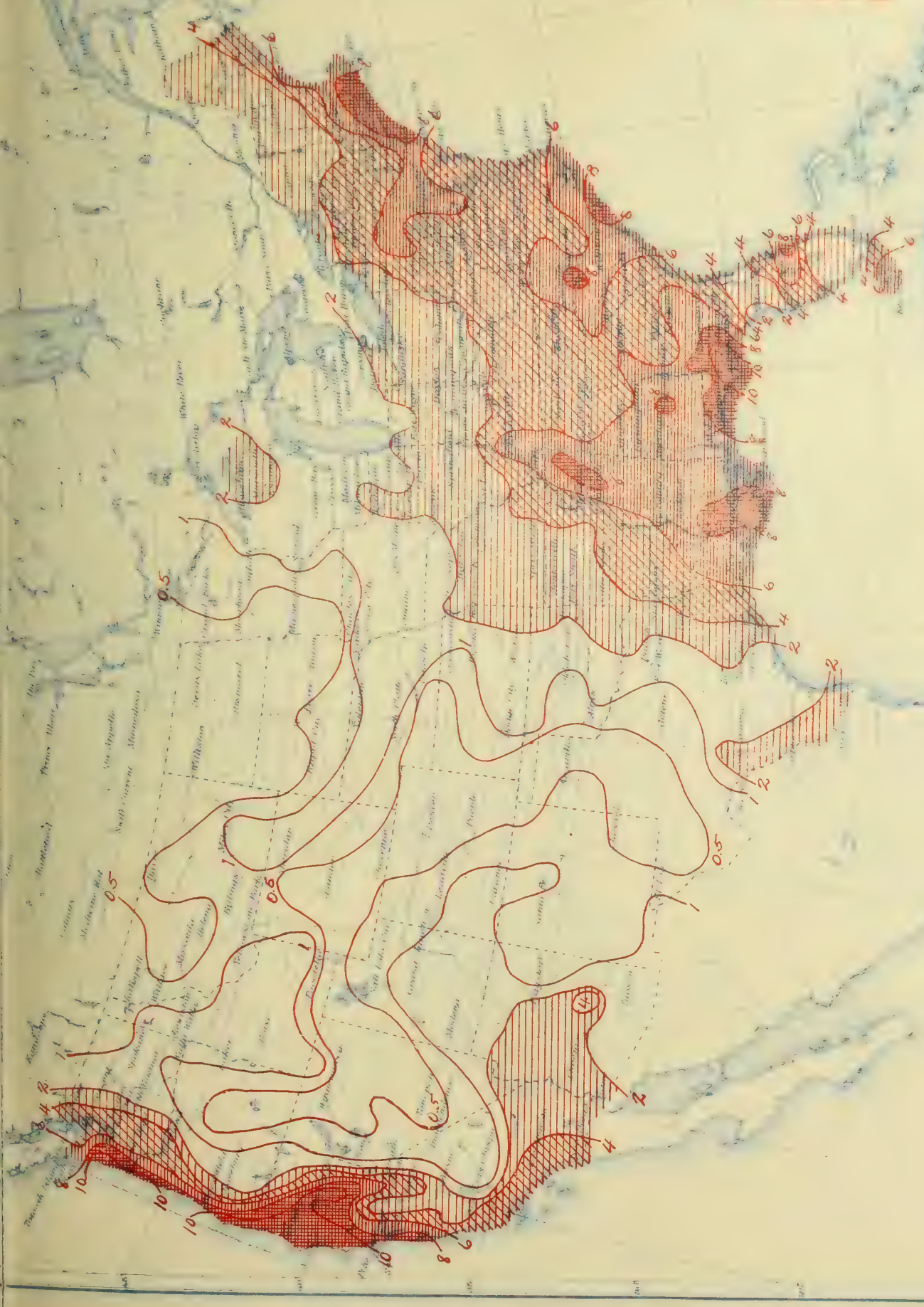
Stations.	Watershed.	Day of month.																															Total.				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31					
Maine.																																					
Ashland	St. John		T.	.03				.40										T.	.60	.22	.15				.20	.07	.31						1.99				
Bar Harbor	Coast																																				
Cambridge	Kennebec		.02					.70				.01						*	*	.80																	
Calais	Saco		.20				.05	.45				.18			.15			.63	1.13	.09					.50	.50	.50						2.51				
Calmar	Penobscot							1.50										*	.78		.38				.50	.77	.42						4.00				
Calmar	Coast		.05					.72				.12	.02		.04			.31	.99	.84	.43				.98	.26	.75						3.85				
Calmar	Kennebec	T.	.05	.10	T.			.19	T.		T.		.12	.07		T.		.22	.25	.62	T.	T.	T.		.60	.25	.25	T.	.07	.05		.17	5.80				
Calmar	do			.03				.36				.12						.26	*	1.02					.57	.38							2.60				
Calmar	do		.08					.85	T.			.05			.02			.21	1.01	.18	T.				.45	.66							3.26				
Calmar	do			.25				.73				.22	.02					.15	1.06	.31	.08				.31	.23	.47						4.21				
Calmar	do		.12	T.				.64	T.			.01			T.			.25	.62	.22	.02				.50	.40							3.83				
Calmar	do							.50										T.	.10	.50	.40				.13	.14	.12						2.31				
Calmar	do							.45																	.15	.15	.03						3.03				
Calmar	do							.74				.22	.01		.05			.65	.87	.15					.13	.14	.12						1.84				
Calmar	do		.14				*	.74				.22	.01		.05			.65	.87	.15					.13	.14	.12						.09	4.29			
Calmar	do		.15				.06	.73				.10		.03				.49	1.13	.04	T.				.63	.03	.81						.49	4.29			
Calmar	do		.02				.11	.50										.23	.84	.45	T.				.44	.55							.49	4.21			
Calmar	do		.12					.51				.18			.06			.58	.72	.32					.74	.74							.13	3.76			
Calmar	do							.51																	.55	.37								3.41			
Calmar	do							.80																	.80	.21	.38							2.49			
Calmar	do		.02	.11				.31				.27	.08		.03			1.03	1.00	.06					.67	.02	1.82		.03				.55	6.00			
Calmar	do							.50										T.	.20	.30	.10				.25	.50	.60						.36	2.75			
Calmar	do		.18				.02	.80				.09		.04				.53	.75	.10					.43	.72							.16	3.82			
Calmar	do			.05				.18			.04							*	*	.05	.18	.05		T.		.24	.22	.20			.10			1.31			
Calmar	do							.68																		.90								2.98			
New Hampshire.																																					
Astead Center	Connecticut		.04					.54				.59	T.		.06			.56	.96	.12					.07	T.	.27		T.	T.	.06	.10	3.97				
Astead Center	do			.10				.32				.10			T.			T.	.67	.04	.03					.05	.33	.03	T.		.05	.05	.10	1.87			
Astead Center	do		.10					.75				*	1.15		T.			.40	*	1.15					.85	.33	.03						.05	.45			
Astead Center	do		.08					.51				.30	T.		.02			.53	.81	.17					.85	.50			T.	T.			.05	4.95			
Astead Center	do		.08	.01				.25				.71	.25		T.			.19	1.21	.18					.61	.07	.11		.01				.22	3.47			
Astead Center	do		.09	T.				.68				.35	.05		.08			.80	.98	.15					.64	.02	.56		T.	T.			.07	3.18			
Astead Center	do		.25	.40				T.																										4.47			
Astead Center	do		.09					.47				.26			.03			.11	.87	.10					.31	.37								2.61			
Astead Center	Connecticut	T.	.10					.41				.41	T.		.05			.41	.85	.06					.43	.03	.37						.04	3.32			
Astead Center	do		.09					.69				.61	.14		T.			.43	1.17	.12					.75	.05	.30						.01	4.44			
Astead Center	Merrimack	T.	T.					.44				.53	.76		T.			.49	1.06	.12					.47	.08	.50						.01	3.40			
Astead Center	do		.01	.07				.41				.55	.32					.24	1.01	.08					.65	.60							.05	4.23			
Astead Center	do		.19	T.				.70				.19	.12		.02			.55	1.22	.22					.45	T.	.23			T.		.05	.34				
Vermont.																																					
Acfield	Connecticut	T.	.08					.41	.02			.06			T.			.06	.39	.17	T.				.35	.27	.20							2.01			
Acfield	Champlain	.03	.02					.34	T.	T.	T.		.10			.01	T.	T.	.24	.14	T.	T.	T.		.08	.24	.10	T.					.07	1.16			
Acfield	do							.70				.52	.10					.40	1.01	.23					.76	.10	.59						.03	T.	T.	.07	4.89
Acfield	do		.08					.60				.20						.30	.62						.47	.40							.08	2.80			
Acfield	do		.20					.45				.14	T.					.05			.21	.31			.25	T.	.10						.05	.12	1.90		
Acfield	do		.07	.09				.14	T.	T.	T.		.06		T.	T.		.11	.16	.27	.07	.05	T.		.19	.15	.27	T.					.04	.04	1.71		
Acfield	do		.02	.07				.40	.02			.10						.01	.23	.11					.25	.17	.25						.04	.04	1.71		
Acfield	do		.03	.01		.23	.30	T.		T.		.24			T.			.13	.51	.07	.04	T.	T.		.43	.40	T.						.17	2.56			
Acfield	do		.01	.36			.90					.15	1.60		.10			*	1.18	.79	.30	.30	.56		.43	.43	.33	.21				.10	.70	T.	8.01		
Acfield	do		.02	.01			.28					.14	T.					.08	.49	.06					.22	.21	.41						.05	.01	1.98		
Acfield	do		.01				1.04					.45						.62	1.23						.24	.12	.04							.01	.33	4.48	
Acfield	do		.18				.35					.50			T.			.47	.60	.22					.44	.19	.28							.03	3.38		
Acfield	do		.02				.57					T.	.45					.25	T.	.40					.48	.48							.04	.08	.07	2.66	
Massachusetts.																																					
Acfield	Connecticut	.12					.02	.95				1.31	.28					.62	1.46	.04	T.				.84	T.	.35		T.	.11			.42	6.52			
Acfield	do		.02					.50				* 2.09			.09			* 1.56							.69	.98			1.01	.02			.67	6.63			
Acfield	do							.45				1.59		.10				* 1.28							.65	.25							.01	.48	4.84		
Acfield	do		.03	.02				.51				.56	.56					1.33	.04						.45	.24	.73		T.	T.			.05	.45	4.45		
Acfield	do		.01	.01				.79				1.17	1.45		.10			.02	1.68	.06					.39	.24	1.27		.01	.02	.01		.12	7.38			
Acfield	do		.04	T.				.68				1.46	.82		T.			T.	1.41	.02					.58	.03	1.15		T.	T.			.16	6.35			
Acfield	do		.05	.03		.60						.51	1.43		.12			T.	1.46	.35					.26	.28	1.37										



## Daily Temperatures for January, 1915.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean		
Maine.																																		
Bar Harbor	Maximum	29	32	30	30	39	50	62	46	41	39	40	34	39	36	32	48	30	37	46	46	41	30	26	34	30	40	28	37	29	21	26	36.7	
	Minimum	7	14	6	1	7	20	33	29	11	6	4	27	26	3	20	20	14	28	32	26	13	4	9	15	11	5	2	21	3	23	21	11.1	
Cornish	Maximum	17	22	19	17	36	40	47	41	29	25	33	37	32	31	37	32	32	46	47	45	34	22	47	33	44	30	29	27	24	0	26	31.6	
	Minimum	4	13	9	5	14	31	36	28	19	15	11	32	13	10	27	24	20	32	44	31	22	6	18	22	23	24	24	5	9	6	17.5		
Eastport	Maximum	22	16	15	18	30	42	49	38	25	22	28	30	28	28	26	33	26	35	45	44	26	11	14	25	20	26	25	28	25	2	16	26.3	
	Minimum	12	4	2	2	7	9	24	20	9	9	2	20	16	0	7	22	8	25	34	25	11	0	2	4	3	13	4	18	9	18	18	6.3	
Greenville	Maximum	18	16	23	19	27	37	48	43	30	28	27	32	31	29	30	35	26	35	47	48	31	19	9	26	19	22	30	25	1	15	27.6		
	Minimum	17	16	2	3	12	7	21	29	14	3	6	19	19	0	8	13	5	26	34	30	15	6	1	9	11	16	7	19	1	16	17	6.3	
Millinocket	Maximum	33	28	28	26	32	37	52	52	40	37	31	35	37	31	38	35	37	39	52	51	44	36	32	27	27	33	34	30	33	25	22	35.3	
	Minimum	6	1	9	1	3	15	27	29	14	13	3	24	25	8	18	23	11	28	37	33	21	10	4	14	8	17	4	22	10	11	21	12	21.2
Orono	Maximum	27	28	27	25	35	42	58	41	35	33	35	35	32	29	33	40	39	44	50	42	36	23	33	31	27	33	28	35	29	13	18	33.4	
	Minimum	6	19	12	8	10	27	40	30	22	18	16	31	21	17	26	27	25	33	35	28	20	12	11	23	20	21	19	26	3	5	2	19.3	
Portland	Maximum	4	10	15	10	20	30	48	40	30	23	20	34	21	15	28	30	28	33	42	37	28	12	12	20	30	20	22	25	35	4	8	23.6	
	Minimum	27	22	1	3	17	13	25	25	19	4	10	14	12	8	14	8	1	20	32	27	15	2	0	3	15	10	12	5	18	35	2	2.6	
Presque Isle	Maximum	20	32	22	23	24	28	48	38	31	30	31	32	36	29	28	40	27	34	36	36	28	14	30	28	26	32	28	34	22	8	18	28.5	
	Minimum	1	8	9	2	4	5	30	26	20	18	5	24	10	2	10	16	13	27	34	22	11	6	6	4	4	10	6	24	3	10	12	10	2.2
Rumford	Maximum	10	12	12	11	11	37	15	42	30	18	35	29	22	23	31	25	36	47	45	28	20	10	18	20	28	25	27	24	2	1	14.0		
	Minimum	20	22	3	11	20	7	20	29	13	5	13	13	10	10	8	19	5	20	32	28	17	5	6	4	15	9	10	10	2	23	36	2.1	
Van Buren	Maximum	22	27	17	25	30	38	49	41	27	25	26	34	35	32	35	36	35	46	50	35	26	20	36	39	27	31	28	33	29	9	14	30.9	
	Minimum	7	16	3	13	9	23	38	27	19	17	10	25	26	14	26	28	24	35	35	26	17	11	11	18	17	19	24	3	11	1	17.7		
Alstead Center	Maximum	22	30	24	19	25	36	51	37	27	25	30	28	35	34	29	29	37	53	38	25	14	27	29	35	32	27	29	23	4	13	25.5		
	Minimum	7	14	2	2	2	16	33	22	10	12	7	23	20	9	14	23	17	27	35	25	14	2	0	5	5	9	10	23	10	25	11	10.9	
Bethlehem	Maximum	27	27	27	26	37	43	57	39	34	34	30	35	41	32	35	42	35	37	56	36	33	19	49	37	34	36	30	33	26	14	17	34.0	
	Minimum	8	16	11	2	4	13	38	28	21	18	9	28	23	13	24	25	21	33	33	23	18	12	11	22	19	13	11	26	4	8	13	16.2	
Concord	Maximum	30	27	26	31	33	39	55	45	41	34	31	33	45	34	37	41	34	35	48	40	33	24	22	35	30	35	29	35	31	15	16	33.8	
	Minimum	3	27	15	4	7	6	33	29	16	19	5	24	30	7	23	26	17	32	34	25	11	9	9	16	14	21	9	24	6	11	16	14.4	
Franklin	Maximum	27	26	24	22	28	34	53	42	31	28	27	30	37	32	31	42	34	36	45	35	28	16	36	37	29	36	24	34	26	12	14	30.9	
	Minimum	5	20	9	2	9	10	32	29	14	17	4	23	23	2	16	24	18	33	33	24	12	7	7	11	11	15	6	22	1	21	16	12.3	
Hanover	Maximum	30	36	29	30	40	46	59	50	39	36	32	36	37	37	37	43	35	37	57	52	36	33	44	49	29	36	36	35	33	19	19	37.6	
	Minimum	2	16	24	4	1	20	35	29	21	14	9	28	31	14	26	21	22	33	35	31	23	16	14	26	21	23	16	28	14	04	1	19.0	
Nashua	Maximum	23	27	26	22	24	30	49	45	32	26	28	30	39	33	35	39	30	35	45	41	31	24	19	32	32	35	29	34	31	10	15	30.7	
	Minimum	5	16	11	5	12	4	30	32	19	11	0	18	29	4	18	17	15	29	34	29	6	10	9	12	7	20	5	24	5	9	14	12.4	
Plymouth	Maximum	23	27	27	20	32	41	51	37	18	17	15	23	31	27	34	35	36	43	42	48	33	25	11	37	23	31	30	33	30	10	4	21	30.9
	Minimum	11	18	1	2	9	31	36	18	11	25	13	27	9	10	32	22	24	32	31	25	11	4	7	12	13	13	15	10	8	13	7	13.8	
Enosburg Falls	Maximum	24	15	7	11	16	26	40	17	10	6	8	23	15	12	29	26	18	35	32	26	3	0	2	3	4	30	30	29	20	4	21	31.2	
	Minimum	24	26	26	18	35	40	50	36	28	27	30	31	33	38	35	38	49	32	23	10	30	24	32	31	28	30	13	10	14	14	29.0		
Northfield	Maximum	2	12	2	8	8	10	36	19	7	7	3	23	5	2	18	17	19	32	32	15	10	5	6	0	1	6	4	13	5	28	16	7.8	
	Minimum	26	28	27	18	27	32	53	45	30	26	32	31	35	34	34	39	35	37	49	46	32	19	28	30	29	32	29	34	30	4	10	31.0	
St. Johnsbury	Maximum	8	8	11	4	11	2	29	29	10	14	2	26	2	2	16	28	16	33	34	28	17	8	5	8	2	10	2	23	1	30	21	9.7	
	Minimum	22	26	24	19	26	36	48	34	30	24	28	33	31	28	34	34	38	42	52	32	26	24	24	35	35	32	30	30	20	6	20	29.9	
Wells	Maximum	6	3	12	3	4	25	34	28	16	16	12	22	18	10	24	27	26	32	32	24	18	6	8	8	14	18	16	20	1	17	4	14.8	
	Minimum	31	28	29	26	37	11	54	38	35	35	32	37	42	42	41	44	38	45	54	38	34	25	42	30	31	37	31	36	27	21	17	35.4	
</																																		







## Daily Precipitation for January, 1915—Continued from page 5.

		Day of month.																															Total.
Stations.	Watershed.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
<i>Rhode Island.</i>																																	
Block Island***	Coast	.12						.68					1.19	.49	.11		.30	2.76	.03	T.	.11		.74	.23	1.04				.06			.36	8.
Bristol	do	.01						.88					* 3.75		T.		1.01	1.53	.22				.95	* 1.72					* .08			.18	10.
Greene	do	.06						1.05					1.41	1.56	.06		.3	.85		.05			.45	.44	1.02			T.	.40		.33	10.	
Hope Valley	do			.13				1.04					1.68	1.37	.06		.25	3.85		T.			1.19	T.	1.54				.25			.30	11.
Kingston	do	.17						.77					1.10	1.20	.08		.09	2.05	.19	.05			.92	.39	1.41			T.	.20		.30	30.	
Narrag'sett Pier***	do	.15						.84					* 2.51		.12		*	* 2.03					*	.57	1.35			T.	.08		.15	7.	
Pawtucket	do	.04						.87					1.14	.64	.09		.22	1.65	.02	T.			.59	.15	.88			T.	.08	.02	.36	6.	
Providence***	do	T.	.04					.98					1.14	.64	.09		.22	1.65	.02	T.			*	.95	T.	.90			.30		.10	7.	
Wallum Lake	do	.10					.95						1.70				.59	1.45	.10														
<i>Connecticut.</i>																																	
Bridgeport	Coast	.07					.01	.77					1.22	.89	.06		.36	2.07	.13				.98	.03	.60			.01	.06	T.		.41	7.
Canton	Connecticut	.09					T.	1.12					* 1.86				.17	2.80	.18	T.			.45	.33	1.10			T.	T.	.20		.20	8.
Colchester	Coast	.20					T.	1.19					.74	.57			.52	.94	.26				1.12	.43	.64				.05	.08		.20	6.
Cream Hill	Housatonic	.08					.07	.96					.75	.40	.10		.2	.80					T.		.50				*	.20		.20	6.
Danielson	Coast	.30						.75					.60	.73			.60	.85	.20			T.	1.38					T.	.20		.15	.5	
Falls Village	Housatonic	.06					1.00						1.03	.15	.05		.69	.98	.06	T.		T.	.93	T.	.50			T.	.17		.30	5.	
Hartford**	Connecticut	.10					.01	.73					.60	.25	.10		.07	1.28					.70		.56	.20	.05	.05		.05		.20	5.
Hawleyville	Housatonic	.10			.13	1.52		.75					1.31	1.50	.25		.75	3.15	.33				.40	.45	1.30				.16		.15	10.	
Lake Konomocif..	Coast	.25					.02	.68					1.79	.86	.05		.72	1.88	.13	T.			.94	.03	.70		.01	.12		*	.59	8.	
New Haven***	do	.07						.75					1.05	1.59	T.		.30	2.85	.25	T.			.45	.15	.74				*	.16		.20	8.
New London	do	.12						.85					.56	1.07	.03		.2	.30	.05				1.01		.86				.10		.35	7.	
N. Grosvenor Dale	do	.03						.67					* 1.87		.10		*	* 2.20					.70	*	.10		.05		.04		.60	6.	
Norwalk	do	.05						.67					1.00	.90	.05		.10	1.90	.15				.70	.25	.60			T.	T.	.05	T.	.7	
Southington	do	.05						1.40																									
South Manchester	Connecticut		.05					1.00					.61	.78			*	2.18	.21				.58	.38	1.00			*	.13		.60	7.	
Storrs	Coast		.04					1.42					.24	1.92	.02	.03		1.05	1.40	.11			.58	1.13		.54			.03			.8	
Torrington	Housatonic							.63					.2	.82	.07		*	* 2.68						.85	1.30					.18		T.	8.
Voluntown	Coast	.07						.70					.28	1.55	.13	.10		1.05	1.94				.45	.63	.73		.01	.18			.93	8.	
Wallingford	do	.15						.70					.28	1.55	.13	.10		1.05	1.94				.45	.63	.73		.01	.18			.93	8.	
Waterbury	Housatonic	.07						T.	1.19				.92	1.06		.02		.32	1.56	.12				.70	.25	.65		.03	.07		.12	.7	

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

† Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.

## Comparative Data for New England for January.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.								
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888....	15.4	59	-44	4.31	.....	14	23.3	10	13	7	.....	nw.	12.0	56	se.	1902....	21.1	56	-20	2.40	3.08	8	9.5	14	7	10	49	nw.	10.7	64	nw.
1889....	30.7	63	-14	4.97	.....	12	10.0	7	9	15	.....	nw.	11.5	70	ne.	1903....	22.8	57	-37	3.56	2.40	10	11.1	12	8	11	55	w.	10.7	56	w.
1890....	28.6	69	-23	2.97	.....	15	8.9	7	9	15	.....	nw.	12.3	66	nw.	1904....	15.0	53	-44	3.76	1.75	12	29.0	12	6	13	49	nw.	10.1	66	nw.
1891....	26.0	59	-30	6.83	.....	16	14.0	8	9	14	.....	nw.	11.3	72	ne.	1905....	18.3	56	-45	3.81	3.30	10	24.9	12	8	11	51	nw.	11.8	84	se.
1892....	24.6	61	-30	4.81	.....	13	12.3	7	10	14	.....	nw.	12.2	66	se.	1906....	39.3	69	-25	2.83	2.20	9	7.5	12	8	11	48	sw.	11.0	67	sw.
1893....	15.3	35	-39	2.54	.....	13	13.9	11	8	12	.....	nw.	10.9	88	ne.	1907....	20.5	65	-45	2.81	2.15	12	16.5	8	8	15	35	nw.	10.3	67	sw.
1894....	24.7	58	-40	2.98	.....	14	18.1	11	8	12	.....	nw.	12.1	78	ne.	1908....	24.7	62	-26	2.94	2.00	8	8.2	14	8	9	52	nw.	13.4	83	sw.
1895....	22.6	56	-29	3.46	.....	14	15.5	10	9	12	.....	sw.	11.2	66	se.	1909....	24.5	67	-32	4.23	2.78	12	18.8	9	7	16	34	nw.	13.0	60	sw.
1896....	19.9	50	-28	1.68	.....	9	10.8	10	9	12	.....	nw.	13.1	66	e.	1910....	25.6	64	-25	4.65	3.53	12	12.4	12	6	13	40	nw.	12.3	78	sw.
1897....	23.0	60	-29	3.72	2.80	9	20.4	9	10	12	.....	nw.	13.1	66	e.	1911....	25.2	60	-33	2.73	1.50	12	6.4	11	7	13	38	nw.	12.1	66	w.
1898....	21.9	58	-39	5.03	2.00	12	27.4	11	8	12	.....	nw.	12.3	71	se.	1912....	15.2	55	-39	3.07	2.28	11	21.6	12	8	11	47	sw.	12.2	77	nw.
1899....	22.3	59	-32	3.59	2.38	9	9.5	14	7	10	.....	sw.	12.1	70	w.	1913....	32.1	63	-30	3.30	1.75	12	4.6	11	7	13	45	nw.	12.1	70	sw.
1900....	23.8	62	-28	4.59	3.00	10	19.7	12	9	10	.....	nw.	12.4	68	w.	1914....	21.1	63	-44	2.93	3.00	11	10.4	9	6	16	35	nw.	13.4	80	nw.
1901....	21.8	55	-31	2.24	1.50	10	15.0	11	8	12	.....	nw.	11.8	60	e.	1915....	25.8	62	-38	5.32	3.85	12	12.1	11	7	13	44	sw.	10.7	78	nw.



U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU

CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

FEBRUARY, 1915

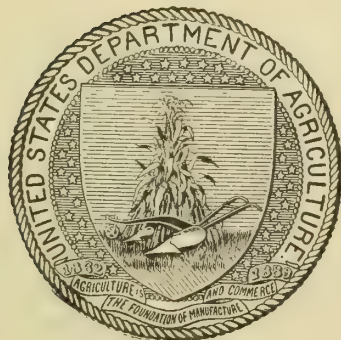
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BY

JOHN W. SMITH

DISTRICT FORECASTER AND SECTION DIRECTOR

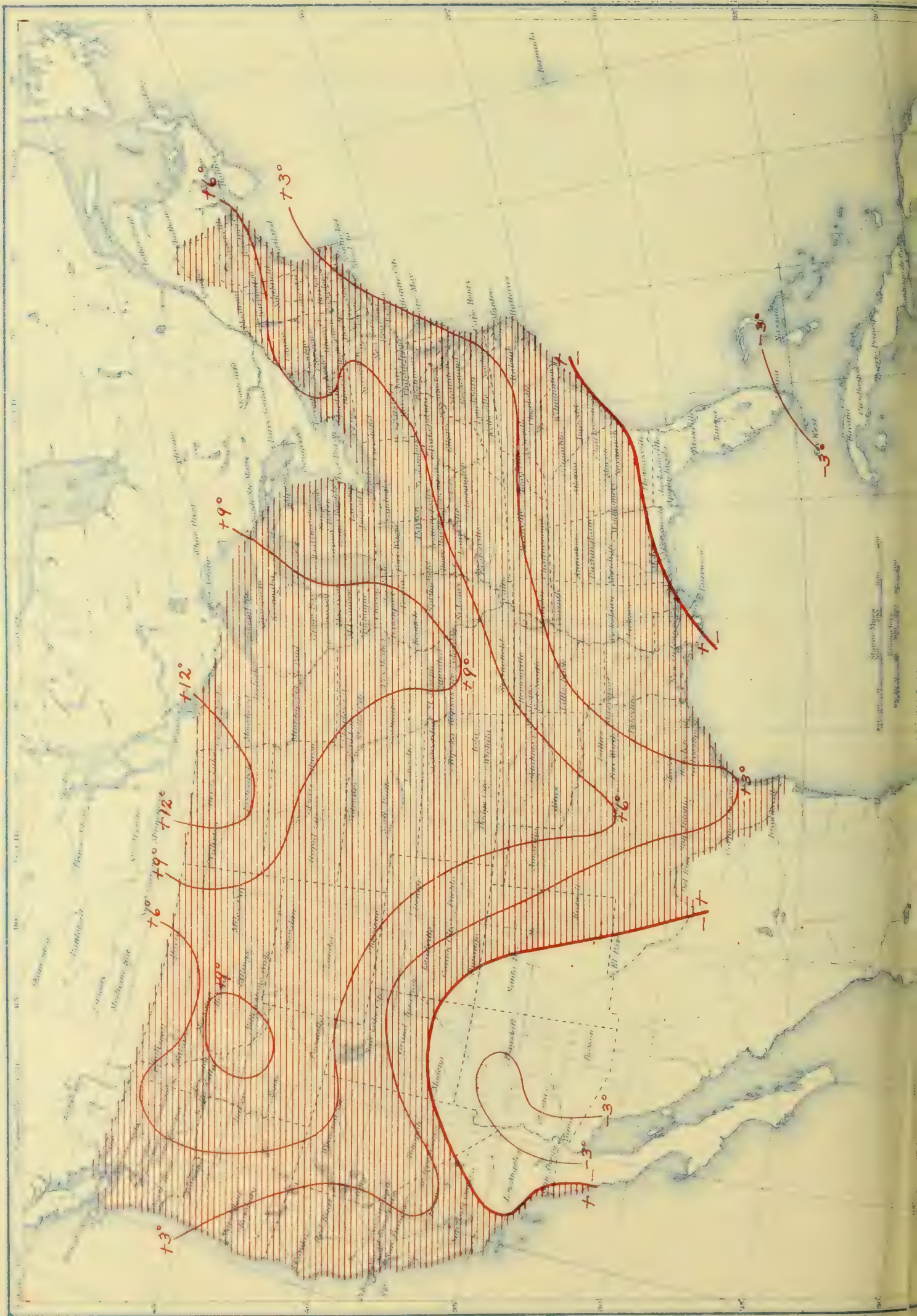
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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
MARCH 19, 1915



Departure of the Mean Temperature from the Normal, February, 1915.





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, District Forecaster and Section Director.

L. XXVII. BOSTON, MASS., FEBRUARY, 1915.

No. 2.

## GENERAL SUMMARY.

The conditions that prevailed through February were much the same as those of the preceding month, the weather being usually mild for the season, with precipitation above the normal and less than an average snowfall. The average temperature was the highest of any February since 1891, and with two exceptions the highest of record for the month in the section averages. At a number of stations the average temperature was the highest of any February of record. The lowest temperature nearly all stations occurred during the first week. Minimum temperatures of zero or below, with the exception of three stations, were confined to the northern states, and occurred at only scattered stations and on only a few dates after the first week. The average precipitation was the greatest for the month since 1899. At only a few stations were the amounts less than three inches. The greater portion of the precipitation occurred during the first week, and from the 24th to the 27th. Snow was general over the section during the first three days, with fairly heavy amounts in the interior. Afterward there was no snowfall of any considerable amount until the 26th, when several inches fell in parts of the northern states. The ground was covered with snow in the interior of the northern portion of the section through the month, the depth accumulating to between 10 and 30 inches during the first decade, and diminishing to between 6 and 12 inches at the close of the month. In the northern states there was little snow on the ground after the first decade. A considerable rise in the rivers in Vermont and New Hampshire, with the formation of ice gorges, caused some damage on the 24-25th.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 15 stations reporting, was 30.10 inches, and 0.07 inch above the normal for the month. The highest monthly mean was 30.13 inches, at Burlington and Northfield, Vt.; the lowest, 30.06 inches, at Fall River, Mass. The highest recorded was 30.70 inches, at Burlington, Vt., on the 19th; the lowest, 29.12 inches, at Concord, N. H., on the 25th. The monthly range for the section was 1.58 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 15 stations, was 28.2°, which was 11.4° above the mean for February, 1914. The mean departure from the normal for 68 stations having ten or more years' record was +5.3°. The average February temperature since 1888, as compared with that of the present year, has been higher in 1 year, the same in 2 years, and lower in 25 years. The highest February average for this period was 30.3°, in 1890; the lowest, 15.9°, in 1897. The average temperature of the several states of the section, was as follows: Maine, 24.9°; New Hampshire, 26.0°; Vermont, 24.4°; Massachusetts, 30.9°; Rhode Island, 31.6°; Connecticut, 26.6°. The departures from the normal were as follows: Maine, 7.0°; New Hampshire, +5.3°; Vermont, +6.3°; Massachusetts, +4.8°; Rhode Island, +2.3°; Connecticut, +5.2°. The highest monthly mean was 35.0°, at Nantucket, Mass.; the lowest, 18.7°, at Van Buren, Me. The highest recorded was 35.0°, at Orono, Me., on the 6th; the lowest, -32°, at Patten, Me., on the 1st. The range for the section was 96°. The greatest local monthly range was 86°, at Patten, Me.; the least, 54°, at Nantucket, Mass. The greatest daily range was 54°, at Patten, Me., on the 1st.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 15 stations reporting, was 76 per cent, which was 2 per cent above the normal. The highest monthly average was 84 per cent, at Nantucket, Mass.; the lowest, 64 per cent, at Fall River, Mass.

## PRECIPITATION.

The average for the section, as shown by the records of 87 stations, was 4.14 inches, which was 1.66 inches above the average for February, 1914. The average precipitation in February in other years since 1888, has been greater in 6 and less in 21 years. The greatest February average during this period was 7.13 inches, in 1900; the least, 0.96 inches, in 1901. The average for the several states was as follows: Maine, 3.95 inches; New Hampshire, 3.52; Vermont, 4.00; Massachusetts, 3.98; Rhode Island, 3.88; Connecticut, 5.24. For the section as a whole, the precipitation was 0.79 inches above the normal for the month. The departures from the normal for the several states were as follows: Maine, +0.56 inches; New Hampshire, +0.59; Vermont, +1.53; Massachusetts, +0.56; Rhode Island, -0.26; Connecticut, +1.38. The greatest monthly amount was 7.02 inches, at Amherst, Mass.; the least, 1.14 inches, at Houlton, Me. The greatest amount in 24 hours was 2.83 inches, at New Haven, Conn., on the 1st and 2d. The average snowfall for the section was 8.3 inches, which was 8.0 inches below the normal, as determined from the records of the past 28 years. The average amount in the several states was as follows: Maine, 11.1 inches; New Hampshire, 9.9; Vermont, 14.3; Massachusetts, 5.5; Rhode Island, 1.8; Connecticut, 4.2. The average number of days with .01 inch or more of precipitation was 10, 1 greater than the normal number for the month.

## WIND.

The prevailing direction of the wind was from the northwest, which is the normal direction for the month. The average monthly wind movement for the section, 15 stations reporting, was 7,697 miles. The average hourly velocity was 11.5 miles, which was 0.9 mile below the normal for the month, as determined from the records of the past 28 years. The greatest monthly wind movement was 13,259 miles, at Nantucket, Mass.; the least, 3,771 miles, at Concord, N. H. The highest velocity recorded was 59 miles per hour from the northwest, at Block Island, R. I., on the 26th. This is much lower than the usual February maximum velocity.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 10; partly cloudy, 6; cloudy, 12. The normal for month is 11 clear, 7 partly cloudy, and 10 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 49, which was 5 per cent below the normal. The greatest percentage of possible sunshine at any station was 68, at Portland, Me.; the least, 39, at Amherst, Mass. The greatest percentage of possible sunshine in any February since the beginning of automatic records in 1893, was 65, in 1901; the least, 36, in 1897.

## DATES OF MISCELLANEOUS PHENOMENA.

*Halos, Lunar.*—Boston, Mass.

*Earthquakes.*—Newton, N. H., and Lawrence, Mass.

*Auroras.*—Eastport, Me., 19, 22; Bethlehem, N. H., 19; Grafton, N. H., 19; Hanover, N. H., 19, 20; Northfield, Vt., 19; Concord, Mass., 19.

*Halos, Solar.*—Cornish and North Bridgeton, Me., Woodstock, Vt., New Haven, Conn., 22; Northfield, Vt., and Boston, Mass., 5, 22; Blue Hill, Mass., 5; Hartford, Conn., 11, 22.



## Climatological Data for February, 1915.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.					No. of days—				Observer.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.	Cloudy.		Prevailing direction of wind.
Maine.																				
Bar Harbor	Hancock	20	29	28.2	+5.6	48	24	-6	27	40	3.07	-1.44	1.20	10.0	7	8	3	17	se.	William Miller.
Cornish	York	778	60	28.8	+7.4	53	20	-6	5	51	5.54	+1.81	1.85	7.5	8	10	7	11	n.	T. H. West.
Eastport	Washington	53	43	27.6	+6.2	47	25	-7	2	31	2.57	-1.05	0.64	8.6	12	6	7	15	s.	U. S. Weather Bureau.
Fairfield	Somerset	90	30	24.6	+6.5	50	26	-14	5	46	3.46	+0.70	1.04	3.0	5	3 <sup>b</sup>	12 <sup>b</sup>	11 <sup>b</sup>	.....	E. F. Parker.
Farmington	Franklin	450	18	24.3	+6.8	44	20	-9	5	38	4.21	+0.82	1.84	10.5	10	11	5	12	ne.	State Normal School.
Gardiner	Kennebec	163	23	27.0	+7.1	48	25	-11	5	48	4.02	+0.56	0.93	5.5	11	11	3	14	nw.	Samuel D. Soule.
Greenville	Piscataquis	1,140	11	20.4	.....	45	22	-15	4	40	4.36	+1.25	1.35	15.0	10	.....	.....	.....	.....	U. S. Weather Bureau.
Houlton	Aroostook	362	23	21.6	.....	45	25	-19	4	47	1.14	-1.37	0.78	30.0	9	11	5	12	nw.	Bangor & Aroostook R.
Lewiston	Androscoggin	185	32	26.4	+6.5	49	20	-7	5	43	4.78	+0.29	1.47	11.2	11	9	7	12	n.	Union Water Power Co.
Madison	Somerset	257	12	20.5	.....	45	21	-27	1	46	5.27	+2.10	1.37	5.8	8	12	1	15	ne.	William Jardine.
Millinocket	Penobscot	386	12	23.2	.....	49	23	-14	11	44	3.48	+0.41	1.11	16.0	11	11	0	17	w.	Great Northern Paper Co.
North Bridgton	Cumberland	450	22	28.4	+9.0	52	20	-4	5	43	5.21	+1.49	2.24	9.0	8	8	10	10	e.	G. E. Chadbourne.
Orono	Penobscot	129	46	28.2	+9.0	54	6	-8	2 <sup>1</sup>	43	3.56	-0.16	0.90	14.0	10	13	6	9	nw.	Department of Physics.
Patten	do	550	13	18.8 <sup>a</sup>	.....	54 <sup>1</sup>	23	-32 <sup>1</sup>	1	54 <sup>1</sup>	3.60	.....	1.00	14.0	6	8 <sup>1</sup>	14 <sup>1</sup>	.....	ne.	Bangor & Aroostook R.
Portland	Cumberland	99	44	28.4	+4.6	47	6	-1	2	30	3.69	+0.04	0.83	10.5	10	9	15	4	n.	U. S. Weather Bureau.
Presque Isle	Aroostook	6	17	6	.....	44	26	-27	4	48	4.10	.....	0.80	22.0	10	11	6	11	w.	E. M. Libby.
Rumford	Oxford	505	22	24.8	+6.6	48	20	-6	5	37	4.65	+1.26	2.21	6.8	10	11	11	6	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	11	18.7	.....	43	23	-25	4	44	4.22	.....	1.35	22.5	10	11	2	15	nw.	J. M. Thomas.
Winslow	Kennebec	90	20	27.8	+9.1	51	9	-11	5	47	4.35	+1.74	1.65	10.0	9	10	9	9	w.	Hollingsworth & Whittier.
New Hampshire.																				
Alstead Center	Cheshire	1,120	11	26.3	+6.5	47	24 <sup>1</sup>	-1	2	22	3.93	+1.13	1.73	13.0	11	12	6	10	nw.	State Sanatorium.
Bethlehem	Grafton	1,470	23	23.4	+6.0	50	25	-4	10	38	3.26	+0.90	0.80	14.5	14	11	3	14	w.	Benjamin Tucker.
Concord	Merrimac	350	55	27.8	+4.2	50	23	-2	5	42	2.89	-0.39	1.44	4.0	8	11	6	11	nw.	U. S. Weather Bureau.
Durham	Stafford	88	20	28.5	+3.8	54	12	-2	11	44	2.84	-0.25	1.08	6.0	9	6	11	11	ne.	Agr. Exp. Station.
Franklin	Merrimac	440	16	24.2	+5.2	52	6	-4	5	42	4.26	+1.45	1.67	8.0	11	11	7	10	nw.	Dr. C. P. Webster.
Glencliff	Grafton	.....	.....	22.8	.....	48	6	-2	2 <sup>1</sup>	33	3.89	+0.99	1.06	16.5	9	12	3	13	nw.	Frank Dewing.
Grafton	do	863	29	23.9	+5.7	48	23	-10	5	46	3.60	+0.54	1.74	15.0	6	10	5	13	nw.	P. R. Kimball.
Hanover	do	603	81	25.4	+6.3	51	23	-4	5	38	3.92	+1.53	1.68	13.5	10	6	8	14	n.	Dartmouth College.
Keenes	Cheshire	506	30	27.2	+4.6	50	25	-3	11	41	4.36	+1.67	1.50	7.5	10	6	12	nw.	Samuel Wadsworth.	
Nashua	Hillsboro	125	30	30.0	+6.0	54	6	-4	4	41	1.95	-1.76	0.76	4.5	8	9	8	11	nw.	C. B. Stevens.
Newton	Rockingham	.....	27	27.6	+3.3	54	24	-4	5	42	2.38	-0.82	0.97	5.0	7	11	8	9	nw.	W. C. Gale.
Plymouth	Grafton	500	27	24.8	+6.9	44	23	-9	5	39	4.95	+2.04	2.38	11.5	10	11	1	16	nw.	Hattie G. Trow.
Vermont.																				
Bloomfield	Essex	.....	8	22.3	.....	45	22 <sup>1</sup>	-14	11	48	3.73	+1.91	1.00	11.5	11	8	3	17	s.	Lyman Falls Power Co.
Burlington	Chittenden	404	8	23.6	+5.7	48	23	-6	2 <sup>1</sup>	29	3.28	+1.91	1.60	18.2	12	7	5	16	n.	U. S. Weather Bureau.
Cavendish	Windser	910	12	24.0	.....	47	24	-17	11	48	4.22	+2.02	2.00	10.0	8	8	5	15	.....	Colonial Power Co.
Chelsea	Orange	840	20	23.8	+5.0	47	6 <sup>1</sup>	-9	10	42	3.38	+0.74	1.42	12.0	9	8	3	17	n.	W. F. Dewey.
Cornwall	Addison	517	22	25.2	+6.0	51	8	-8	2	30	2.40	+0.30	0.95	13.5	8	9	8	11	n.	C. H. Lane.
Enosburg Falls	Franklin	601	24	22.8	+5.8	50	25	-14	4	46	3.76	+1.04	0.84	25.5	13	9	3	16	nw.	J. W. Pomeroy.
Hyde Park	Lamoille	576	3	23.5	.....	54	23	-8	4	46	3.43	.....	1.26	18.0	12	9	0	19	nw.	A. V. Wiswell.
Northfield	Washington	876	29	22.2	+5.0	48	23	-7	10	45	3.32	+1.06	1.64	11.6	9	7	3	18	s.	U. S. Weather Bureau.
Somerset	Windham	2,096	4	24.0	.....	50	23	-5	10	38	5.95	.....	1.18	18.8	13	8	6	14	nw.	Power Construction Co.
St. Johnsbury	Caledonia	711	22	24.6	+7.4	47	6	-6	5	42	3.47	+1.37	1.11	14.1	11	9	4	15	n.	Fairbanks Museum.
Vernon	Windham	.....	.....	27.7	+5.5	48	21	-2	5	39	4.78	+1.79	1.77	8.0	9	10	4	14	w.	Conn. River Power Co.
Wells	Rutland	750	24	24.8	+5.5	48	24 <sup>1</sup>	-7	10	24	5.48	+2.82	1.52	18.0	9	7	10	11	sw.	E. R. Fember.
Woodstock	Windser	700	23	26.4	+9.0	48	23	-7	10	35	4.17	+1.43	2.01	4.0	5	8	4	16	.....	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	26	28.8	+3.9	51	24	7	5	35	7.02	+3.60	2.19	6.5	12	11	2	15	nw.	Agr. Exp. Station.
Blue Hill	Norfolk	640	31	29.1	+3.5	55	24	2	3	24	4.30	+0.41	1.06	7.0	12	9	5	14	nw.	Blue Hill Observatory.
Boston	Suffolk	124	45	33.2	+5.2	61	24	10	2	25	3.47	+0.08	1.30	5.1	12	10	8	10	nw.	U. S. Weather Bureau.
Chestnut Hill	do	124	35	32.3	+5.0	59	24	5	5	32	3.41	-0.78	0.87	3.0	11	19	0	9	.....	Met. Water Board.
Clinton	Worcester	370	19	28.6	.....	57	24	3	2	37	3.61	+0.39	.....	2.2	11	.....	.....	.....	.....	Do.
Concord	Middlesex	139	25	29.6	+6.1	57	24	1	1	33	3.62	+0.29	0.95	5.3	10	9	8	11	nw.	Fred A. Tower.
Fall River	Bristol	200	49	32.5	+3.9	54	15 <sup>1</sup>	11	3 <sup>1</sup>	20	4.34	+0.25	1.30	5.2	11	9	10	9	nw.	C. V. S. Remington.
Fitchburg	Worcester	550	32	29.8	+5.7	53	6	2	2	28	3.05	-0.23	1.08	5.0	10	11	6	11	nw.	Dr. A. P. Mason.
Framingham	Middlesex	160	35	31.0	+4.4	55	24	1	5	34	3.37	-0.60	1.09	2.8	11	.....	.....	.....	.....	Met. Water Board.
Hyannis	Barnstable	31	24	33.9	+3.6	49	24	18	27 <sup>1</sup>	20	4.34	+0.35	1.35	.....	8	10	13	5	.....	C. F. Sleeper.
Lawrence	Essex	51	31	29.9	+5.3	56	24	-3	5	41	3.41	+0.21	1.00	6.8	11	10	13	5	sw.	Essex Company.
Lowell	Middlesex	100	30	31.4	+6.3	55	25	0	5	36	3.51	-0.85	1.23	.....	8	.....	.....	.....	.....	Props. Locks & Canals.
Middleboro	Plymouth	53	29	31.6	+3.8	55	24	5	5	33	4.12	+0.05	1.23	3.0	13	6	5	17	ne.	Ralph Sampson.
Nantucket	Nantucket	47	29	35.0	+2.4	49	15	20	27	18	3.32	+0.21	1.86	5.1	9	5	7	16	ne.	U. S. Weather Bureau.
New Bedford	Bristol	88	103	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	City Engineer.
Norfolk	Norfolk	244	12	31.0	.....	59	24	-2	5	37	3.12	.....	1.82	8.0	5	10	2	16	n.	Ruby H. Martyn.
Plymouth	Plymouth	.....	30	32.2	.....	60	25	13	10	30	5.96	+1.92	2.23	10.0	10	7 <sup>a</sup>	11 <sup>a</sup>	9 <sup>a</sup>	.....	L. B. Knapp.
Provincetown	Barnstable	40	28	33.8	+4.6	48	25	19	11 <sup>1</sup>	20	3.62	+0.09	1.27	6.0	9	0	9	10	ne.	Gideon Bowley.
Rockport	Essex	25	13	32.2	.....	52	6	13	11	26	2.71	.....	0.52	0.6	9	9	7	12	nw.	C. F. P. Bearse.
Rutland	Worcester	1,160	13	27.4	.....	54	24	-3	2	33	3.60	.....	1.00	4.7	11	12	8	8	w.	State Sanatorium.
Springfield	Hampden	199																		



Daily Precipitation for February, 1915.

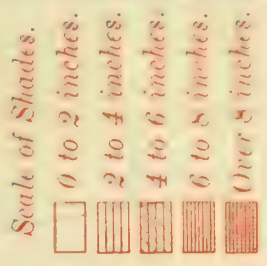
Stations.	Watershed.	Day of month.																															Total
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Maine.																																	
Ashland	St. John	.04		.20			.27	.15	.69							.29	.06								.39	.65	.12	.51	.01				3.38
Bar Harbor	Coast	.70	.05				1.20		.02					T.				.70	T.							.19	.30		T.	T.			3.07
Cambridge	Kennebec	.40	.14				.58		.55							.30	.55								.15	.70	.85						4.22
Cornish	Saco	.25	.40	T.			.65		.48							.20	.50								.60	1.85	T.						5.54
Danforth	Penobscot	.54	.11				.30		.68				.17			.18	.47								.28	.76	.38						3.92
Eastport***	Coast	.30	.20	.18			.40		.11					T.		.10	.13	T.	T.						.01	.44	.04	.13					2.57
Eustis	Kennebec	.10	.06	.20	T.		.20	.10	.27	T.	T.		T.												.35	.68	.34	.01	T.				2.54
Fairfield	do			.43			.64		.45							1.04											.90						3.46
Farmington	do	.26	.10	.07			.20		.09							.40	.27									.71	1.84	.24	T.				4.21
Gardner	do	.38	.15	.13			.47		.55				.05			.56	.10									.94	1.35	.35	.05	T.			4.36
Greenville**	do	T.	.05	.10			.25	.15	.60	T.		T.	T.			.52		T.								.28	.93	.12					1.02
Houlton	St. John	.01		.02			.01		.06							.05										.94	1.35	.35	.05	T.			4.36
Howe Brook	Penobscot	.10		.18			.16	.06	.55				.03			.05										.16	.78		.02				1.14
Leiston	Androscoggin	.32	.29	.22			.52	.05	.58				.10			.26	.20									.15	.65	.27	.30				2.98
Madison	Kennebec		.19			.18	.52	.48		.58				T.		.92	.06									.29	1.47	.03					4.78
Millinocket	Penobscot		.12			.21	.31	.60								1.10									.22	1.21	.37						5.27
North Bridgton	Saco			.45			.58	.03	.38				.03			.51									.08	.31	1.11	.16	.04	T.			3.48
Quassac	Androscoggin		.20				.75		.30							.25										.40	2.24	.15					5.21
Orono	Penobscot	.60		.30			.75		.30				.05				.90										.11	.30	.40	.15			1.15
Patten	do	.20					.60									.80										.10	1.00		.60				3.59
Portland***	Coast	.13	.36	T.			.56	.40	.43					T.		.71	.06								T.	.18	.83	.03					3.60
Presque Isle	St. John			.60			.30	.10	.80							.40	.10	T.								.50	.70	.20	.40				3.69
Rumford	Androscoggin	.18	.29	.10			.28	.35	.25							.40										.65	2.10	.05					1.10
Sanborn	St. John	.30		.10			.23	.30	1.35	T.	T.			.12		T.									T.	.26	1.25	.18	.15	T.			4.65
Winslow	Kennebec	.28	.35				.90									* 1.65										* 1.17							4.22
New Hampshire.																																	
Alstead Center	Connecticut	.11	.49	.17			.36		.07					T.		.62	.07									.23	1.73	.07					4.35
Bethlehem	do	.80	.10	.20			.19	.05	.20					.01		.64	.08									.33	.15	.14	.02				3.93
Brookline	Merrimack	.25	.80													.80										* 1.75			T.				3.26
Concord***	do	.03	.38	.03			.14		.05							.79		T.								.26	1.21	T.	T.				3.60
Durham	do	.46	.31	T.			.05		.05							.49	.30									.08	1.08	.02					2.89
Franklin	do	.35	.37	.21			.40	.15	.13							.69	.07									.16	1.67	.06					2.84
Glencoff	do	.70	.59				.21		.12				.10			.26		T.								1.06	.83	.02	T.				4.26
Hamover	Connecticut	.27	.52	.22	T.				T.	T.						.82										.19	1.55	.04					3.89
Keene	do	.20	.72	.09			.47		.15							.45	.01									.28	1.68	.20	.01				3.60
Massena	Merrimack		.76	.06			.32		.01							.82	.12									.20	1.50	.09					3.92
Newton	do	.12	.25	T.			.31		.16							.28	.30									.02	.20	T.	T.				4.36
Lyndmouth	do	.52	.23	.35	T.		.36	.04								.64	.07	T.								.25	2.38	.11					1.95
Vermont.																																	
Acornfield	Connecticut	.35	.17	.18			.48		.20							.52	.15									.37	1.00	.29	.02				4.95
Acornfield***	Champlain	.25	.39	.12		.04	.10	.05	T.	T.				.01		.22	T.	T.							.01	.47	1.58	.04	T.	T.			3.73
Albany	Connecticut	.35	.50	.18	T.		.35									.48	.24									.12	2.00						3.28
Albany	do	.30	.35	.20			.18									.45	.08									.35	1.42	.05					4.22
Andover	Champlain	.45					.30	.06	.03	T.						.30										.31	.25	.70	T.				3.38
Andover Falls	do	.36	.23	.12			.25	.08	.10	.04				.03		.35										.63	.84	.55	.18				2.40
De Park	do	.42	.33	.10			.23	.06	.05	T.						.47	.02									.25	1.26	.22	.02				3.76
Dorchester	Hudson																																3.43
Elthield***	Champlain	.24	.42	.10		T.	.28	T.		T.					.02	.37		T.								.51	1.37	.01	T.	T.			3.32
Fersert	Connecticut	.55	.05	.74	.15		.38		.11	.02					.40											.08	1.18	.75	.04				5.95
Johnbury	do	.62	.35	.28			.23	.03	.06							.33	.12	T.								.18	1.11	.16	T.				3.47
Madison	Champlain	.33	.46	.03			.41		.08							.78										1.77	.74						4.78
Madison	Connecticut	.42	.32	.18			T.	.52							.18	.97	.11									.36	1.52	1.08					5.43
Madstock	do	.43		.77			.45		T.	T.						.51		T.								.20	1.01						4.17
Massachusetts.																																	
Acornfield	Connecticut	.86	.34	1.05		.19	.31	.15	.05							.91	.07									.02	.88	2.19					7.02
Acornfield	Merrimack		.68	.07		* 1.14	.39		.06				.01			.17	.52									.01	* 1.14						3.44
Acornfield	do	.75	.68				.30		.08					T.		.11	.59										.93						3.51
Acornfield	Coast	.69	.84	.03	T.		.33		.12				.02			.09	.58									T.	.08	.89	T.				3.62
Acornfield	do	1.05	.90	.17	.04		.47	T.	.11				.03			.06	.31									.01	.09	1.06	T.				4.30
Acornfield	Coast	.88	.95	.03	T.		.36	.08	.02				.01			.31	.14									.03	.08	.58	T.	T.			3.47
Acornfield	do	1.09	.65	.10	.09		.40	T.	.09							.12	.20									.02	.81						3.45
Acornfield	do	.87	.38	T.			.29	.13					.04		.12	.58	.04									.07	.58	.34					3.44
Acornfield	do	.70	.91	.03	T.		.27	T.	.10																								



## Daily Temperatures for February, 1915.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean
Maine.																																
Bar Harbor	Maximum	30	8	6	20	42	42	40	38	38	32	43	42	35	38	40	42	38	36	38	40	42	42	40	48	47	38	38	34	34	36.3	
	Minimum	8	6	5	6	50	34	35	32	25	10	3	23	13	17	28	35	32	25	15	20	17	12	20	32	36	28	28	30	41	20.2	
Cornish	Maximum	35	18	19	30	44	50	52	45	42	33	45	50	42	34	38	46	45	41	46	53	47	50	50	40	47	40	40	41	41	41.6	
	Minimum	14	2	4	5	7	29	28	30	18	3	2	30	6	10	31	33	23	6	7	11	12	27	33	35	26	22	18	21	21	33.1	
Eastport	Maximum	30	8	15	18	36	44	40	37	32	19	39	39	27	34	43	44	39	31	34	39	35	36	42	40	47	40	34	28	28	30.6	
	Minimum	1	6	5	3	12	36	36	32	27	13	29	36	25	33	35	37	31	28	35	42	37	45	44	34	44	42	22	20	10	10.7	
Greenville	Maximum	18	2	11	21	32	39	36	32	26	8	1	6	18	2	5	27	31	15	12	8	4	13	5	18	30	34	19	14	12	38.1	
	Minimum	2	13	6	15	9	23	30	26	8	1	6	18	2	5	27	31	15	12	8	4	13	5	18	30	34	19	14	12	12	38.1	
Millinocket	Maximum	21	10	13	23	32	37	42	37	31	18	29	38	30	35	42	38	33	43	42	37	46	49	45	45	45	27	26	17	17	38.1	
	Minimum	10	10	13	23	32	37	42	37	31	18	29	38	30	35	42	38	33	43	42	37	46	49	45	45	45	27	26	17	17	38.1	
Orono	Maximum	28	24	16	18	35	44	45	43	39	33	36	39	40	37	44	44	44	44	36	37	43	45	43	45	46	47	49	35	33	35.5	
	Minimum	14	8	4	3	8	29	36	31	22	5	4	31	6	2	31	37	32	15	13	34	38	40	40	44	45	36	32	21	20	21.1	
Portland	Maximum	30	12	15	20	36	47	40	39	35	24	38	46	34	36	42	43	38	33	39	45	45	45	45	46	47	49	35	33	25	28.2	
	Minimum	12	1	2	5	6	35	31	32	13	10	11	26	17	18	36	36	21	17	21	27	27	30	36	40	43	33	24	13	13	6.6	
Presque Isle	Maximum	15	1	12	12	22	35	40	32	28	19	28	24	22	27	35	40	34	30	33	35	30	36	40	43	33	24	13	13	13	33.3	
	Minimum	4	18	8	27	11	15	30	27	10	5	20	0	12	15	32	19	9	10	10	10	10	10	10	10	10	10	10	10	10	10	29.7
Rumford	Maximum	28	8	16	22	36	47	40	39	35	24	38	46	34	36	42	43	38	33	39	45	45	45	46	47	49	35	33	25	28.2		
	Minimum	10	0	3	4	6	30	30	32	12	6	2	20	10	2	29	34	20	15	10	25	15	12	28	34	36	18	18	18	18	18	29.7
Van Buren	Maximum	14	0	15	14	26	36	39	35	25	15	22	30	23	31	35	39	35	31	35	42	39	36	43	30	40	40	35	24	24	29.7	
	Minimum	2	22	7	25	14	18	32	25	5	4	20	20	3	10	12	30	20	10	8	2	13	1	8	26	32	35	23	13	13	7.9	
New Hampshire.																																
Alstead Center	Maximum	26	16	15	24	28	43	43	37	28	15	33	43	34	34	43	43	32	32	32	38	39	43	44	47	47	33	13	13	12	39.2	
	Minimum	13	1	9	13	28	29	28	25	0	12	32	22	12	22	33	32	24	13	24	26	23	32	32	32	32	33	13	13	12	12	39.2
Bethlehem	Maximum	22	9	17	23	38	47	42	31	26	14	36	40	30	30	47	37	29	26	33	40	43	48	47	50	31	17	17	10	8	17.4	
	Minimum	9	1	5	9	7	25	29	26	9	4	2	21	1	11	27	19	15	6	7	13	15	17	29	34	31	10	8	10	29	14.7	
Concord	Maximum	32	18	17	29	37	47	45	39	32	22	41	49	38	36	38	42	56	34	42	49	44	44	50	46	47	36	27	16	17	18.3	
	Minimum	14	0	9	7	2	32	32	12	8	1	27	17	14	35	35	35	20	15	14	17	20	18	30	35	36	16	16	17	17	18.3	
Franklin	Maximum	32	20	18	32	37	52	48	41	31	23	39	46	42	31	36	41	35	35	43	51	45	46	48	48	44	46	35	24	26	34.5	
	Minimum	0	0	8	8	4	31	25	31	15	4	3	32	12	12	29	33	25	9	19	17	14	28	34	36	19	15	17	14	14	34.5	
Hanover	Maximum	26	12	17	31	32	42	46	36	31	20	35	43	36	34	49	39	35	30	41	46	49	48	48	44	46	35	24	26	21	35.15	
	Minimum	12	3	7	5	4	31	25	31	15	4	3	32	12	12	29	33	25	9	19	17	14	28	34	36	19	15	17	14	14	35.15	
Nashua	Maximum	34	27	16	19	37	54	48	47	35	27	44	51	49	36	38	42	39	35	43	50	46	48	48	44	46	35	24	26	21	35.15	
	Minimum	12	3	7	5	4	31	25	31	15	4	3	32	12	12	29	33	25	9	19	17	14	28	34	36	19	15	17	14	14	35.15	
Plymouth	Maximum	28	19	21	27	30	43	40	35	32	17	32	43	34	31	35	40	35	29	36	42	40	40	40	44	44	44	42	23	17	20	30.3
	Minimum	12	3	10	3	9	29	26	30	17	5	7	27	11	4	28	33	24	12	4	21	9	8	26	24	34	18	14	15	15	30.3	
Vermont.																																
Burlington	Maximum	23	5	8	22	35	41	38	35	23	15	37	39	28	39	44	39	32	21	33	40	39	45	48	48	47	28	19	22	15	31.15	
	Minimum	1	6	3	6	6	34	30	22	3	1	11	16	7	17	36	32	16	11	8	15	19	21	33	38	28	10	13	15	15	31.15	
Enosburg Falls	Maximum	21	8	12	19	33	49	38	33	22	26	39	40	30	41	44	38	33	29	35	41	37	45	48	46	50	32	14	17	12	32.32	
	Minimum	5	1	8	14	1	30	32	22	8	2	7	26	5	8	36	32	18	6	2	7	12	12	32	37	32	10	10	13	12	32.32	
Northfield	Maximum	23	6	17	25	32	42	38	33	22	14	42	45	30	33	39	38	30	26	36	42	47	44	42	48	42	32	18	22	11	31.11	
	Minimum	4	0	6	6	5	32	28	23	5	7	3	13	3	7	33	30	14	0	3	3	4	10	46	46	40	44	43	22	20	34.34	
St. Johnsbury	Maximum	23	15	20	30	35	37	43	37	32	17	34	39	34	30	39	40	36	27	37	45	43	46	46	40	44	43	42	22	20	34.34	
	Minimum	11	3	7	2	6	30	29	27	14	1	4	32	2	6	30	34	23	9	1	3	3	10	10	27	34	36	16	13	15	34.34	
Wells	Maximum	30	14	12	22	30	40	36	34	30	12	30	32	32	32	37	46	40	33	30	35	38	40	45	48	48	32	22	24	24	37.37	
	Minimum	14	0	6	5	22	30	30	28	10	7	6	30	8	20	26	33	24	10	8	18	18	22	34	38	32	14	5	5	5	37.37	
Massachusetts.																																
Amherst	Maximum	33	15	20	35	31	47	43	36	30	28	39	45	41	38	43	39	35	32	42	49	45	46	47	45	51	50	37	26	30	37.37	
	Minimum	15	8	11	12	2	31	29	24	16	3	4	30	20	20	33	32	22	17	19	25	22	20	35	35	27	16	14	18	18	37.37	
Blue Hill	Maximum	36	26	17	17	30	47	41	35	29	22	39	42	35	34	51	48	34	28	35	38	26	25	31	39	35	19	13	14	29	37.37	
	Minimum	21	7																													





0 No Rain 0



## Daily Precipitation for February, 1915—Continued from page 13.

Stations.	Watershed.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
<i>Rhode Island.</i>																																	
Block Island ***	Coast	1.71	.22				.23	.03					T.			.13	.26							T.	.07	.72	.01						3.86
Bristol	do		2.45	T.			.34	.02					T.			* .14									*	.90							3.86
Greene	do	1.21	.81				.43	.09								.25									*	1.75	.25						4.75
Hope Valley	do	1.79	.50				.52	T.	.03							.17										1.84							4.86
Kingston	do	1.92	1.10				.42						.02			.05	.13									.11	1.12						4.87
Narrag'sett Pier***	do	1.80	.40	T.		T.	.41		.02				.03			.04	.35								T.	.95	T.						4.00
Pawtucket	do		*	*	1.65		T.						.06			* .15									*	1.37							3.22
Providence***	do	.85	.45	T.	T.		.43	.02	.05				.01			.08	.04							.01	.38	.98							3.80
Walling Lake	do	1.50	.30	.10			.57	.20					.23			.73										1.54	.29						5.46
<i>Connecticut.</i>																																	
Bridgeport	Coast	2.23	.87	.10	.05	.01	.47	T.	.03							.30	.51									.20	1.49	.04					6.80
Canton	Connecticut	.86	.73	.13			T.	.53					T.			.48										*	1.88						4.61
Colchester	Coast	1.47	* .87				T.	.72	T.	.20			T.			.46	.28									.15	2.10	T.					6.25
Cream Hill	Housatonic	1.36	.44	.15		.06			.04	.40			T.			.93										.85	1.24	.10					5.62
Danielson	Coast	* *	.60						.50							.25	.20									* 1.50							3.05
Falls Village	Housatonic	1.75	.08	.12		.10	.37	.07	.08							.82										1.25	.81		.06				5.64
Hartford **	Connecticut	.89	.66	.06		.05	.33	.01	.05				T.			.55	.08								T.	.66	.96	T.					4.30
Hawleyville	Housatonic	1.60	.28				.84								.15	.58							2.00	.32								5.77	
Lake Konomocoff	Coast	2.35	1.00				.47		.04							.25										2.00	.20	.05					6.86
New Haven***	do	2.22	1.04	.54		.02	.49	T.			T.	T.		T.		.67	.07							T.		.75	.83	.08					6.81
New London	do	2.20	.40	.25			.55									.08	.51									*	1.53						5.62
N. Grosvenor Dale	do	.60	.85				.52	.24				.03				.86										.04	1.68						4.82
Norwalk	do	* *	* 2.52	T.		.45										* .66										* 1.25							4.88
Southington	do	1.15	.70	.10	.05	T.	.75									.20	.45									.05	1.95						5.40
South Manchester	Connecticut																																
Storrs	Coast	.50	* .84	.05			* .20					.03				.31	.57									.06	1.81						4.41
Torrington	Housatonic	.75	.80	.25	.09		.75	.02								.18	.70									.08	2.12	.34					6.08
Volltown	Coast	2.55					.36	.23				.02				.10										.02	1.75	.04					5.07
Wallingford	do																																
Waterbury	Housatonic	1.20	.87	.18		T.	.61	.01								.10	.47									.15	1.90	T.					5.49

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations.

\*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.  
 † Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.

## Comparative Data for New England for February.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.								
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888...	23.9	60	-30	3.73		10	11.9	9	12	8	...	nw.	9.9	58	e.	1902...	23.8	65	-23	3.77	2.37	8	18.9	13	6	9	52	nw.	14.8	72	se.
1889...	22.0	58	-44	2.32		10	16.7	9	9	10	...	nw.	11.1	50	w.	1903...	25.7	63	-37	4.03	2.05	9	17.6	12	6	10	60	nw.	12.0	69	s.
1890...	30.3	70	-20	3.59		12	7.9	8	8	12	...	nw.	12.4	60	nw.	1904...	16.6	59	-43	2.39	2.23	9	12.4	13	6	10	58	nw.	12.8	78	nw.
1891...	28.2	63	-28	4.61		16	14.5	7	10	11	...	nw.	12.8	55	e.	1905...	17.1	54	-32	1.53	1.70	6	11.8	14	6	8	53	nw.	13.3	68	w.
1892...	25.9	54	-26	2.09		8	14.8	9	7	13	...	nw.	12.3	64	ne.	1906...	24.5	63	-36	2.53	2.07	6	11.7	14	6	8	58	nw.	11.6	60	ne.
1893...	21.7	59	-32	4.05		13	39.1	8	9	11	...	nw.	13.3	69	nw.	1907...	15.9	55	-37	2.08	1.85	9	21.9	12	8	8	55	nw.	11.9	70	ne.
1894...	21.5	59	-42	3.05		9	24.6	9	8	11	...	nw.	13.0	73	e.	1908...	20.7	60	-38	4.31	2.31	9	20.9	13	7	9	55	nw.	11.5	84	s.
1895...	19.3	52	-27	1.05		5	11.1	12	8	8	...	nw.	12.7	68	w.	1909...	26.4	61	-30	5.24	2.64	9	7.9	11	7	10	45	nw.	12.8	90	s.
1896...	23.6	57	-37	5.08	4.12	11	16.9	10	8	11	...	nw.	14.5	58	se.	1910...	23.4	60	-31	4.03	2.04	10	22.1	12	7	9	50	nw.	12.6	70	ne.
1897...	25.1	53	-27	2.47	2.20	7	14.3	12	8	8	...	nw.	11.6	70	ne.	1911...	21.2	58	-32	2.54	2.20	9	18.6	11	6	11	47	nw.	11.8	55	se.
1898...	27.1	60	-38	5.20	4.90	10	22.6	9	6	13	...	nw.	11.3	76	ne.	1912...	21.8	58	-34	2.51	2.72	5	7.8	16	7	6	61	nw.	10.9	72	sw.
1899...	21.1	60	-30	3.74	2.14	11	27.0	11	7	10	...	nw.	12.3	73	n.	1913...	21.9	61	-39	2.65	2.40	8	10.4	16	5	7	62	nw.	11.0	60	w.
1900...	23.3	68	-30	7.13	3.84	10	16.1	10	6	12	...	nw.	14.2	78	w.	1914...	16.8	58	-36	2.48	2.64	7	19.5	15	6	7	62	nw.	13.2	72	nw.
1901...	18.0	49	-23	0.96	1.90	4	9.7	15	7	6	...	nw.	15.2	61	nw.	1915...	28.2	64	-32	4.14	2.83	10	8.3	10	6	12	49	nw.	11.5	59	nw.



Stack  
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UNIVERSITY OF CALIFORNIA  
28 MAR 1915

U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

NEW ENGLAND SECTION

MARCH, 1915

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BY  
JOHN W. SMITH  
DISTRICT FORECASTER AND SECTION DIRECTOR

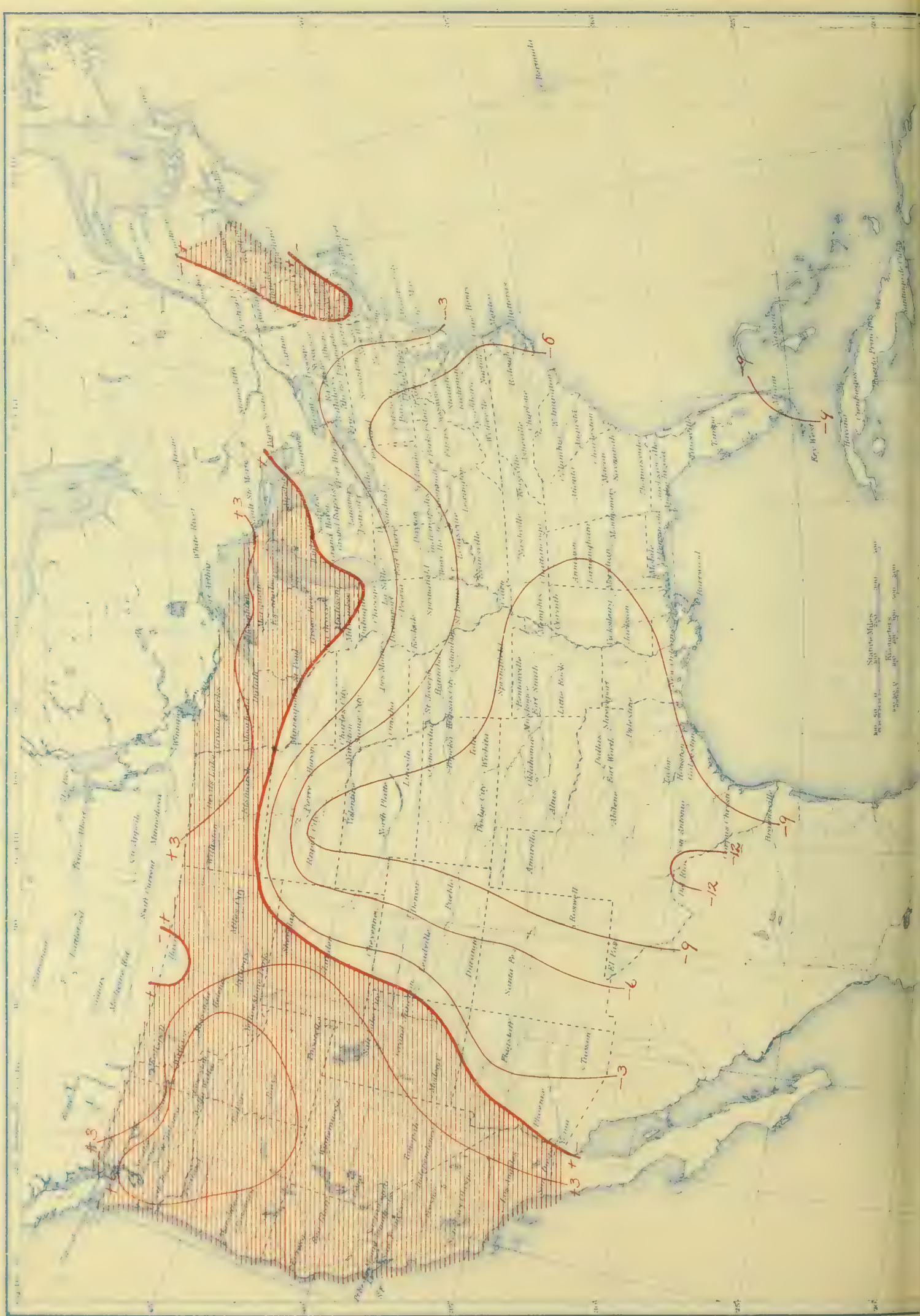
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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
APRIL 21, 1915



Departure of the Mean Temperature from the Normal, March, 1915.





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, District Forecaster and Section Director.

VOL. XXVII. BOSTON, MASS., MARCH, 1915.

No. 3.

## GENERAL SUMMARY.

The marked feature of the month was the very small amount of precipitation, which, it is probable, was the least for any calendar month of record in this section. The previous lowest for any month since the section averages have been computed, beginning in 1888, was 0.68 inch in May, 1903. At a number of stations having records covering the past 50 years, the total was less than in any previous month. At New Bedford, Mass., where observations have been taken since 1814, the least monthly amount previous to that of March this year, 0.10 inch, was 0.24 inch in August, 1854. At Boston, Mass., in authentic records extending back to 1818, the least amount was 0.20 inch in April, 1844, until the present month, when only a trace fell. The greater part of the precipitation occurred during the last decade, when showers were comparatively frequent. The average for the month was somewhat greater in Maine than in the other states, and was least in Massachusetts, where at a number of stations only a trace fell, and at one station none. Snow remained on the ground throughout the month in the northern portions of the northern states, the depth gradually diminishing from between 10 and 20 inches at the beginning, to between 1 and 10 inches at the end of the month. The temperature was near the normal, with less than the average range, and minima not as low as usual. The number of clear days and amount of sunshine were greater than in any previous March of record.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 15 stations reporting, was 29.79 inches, and 0.19 inch below the normal for the month. The highest monthly mean was 29.89 inches, at Burlington, Vt.; the lowest, 29.65 inches, at Eastport, Me. The highest recorded was 30.44 inches, at Burlington, Vt., on the 5th; the lowest, 29.38 inches, at Eastport, Me., on the 30th. The monthly range for the section was 1.06 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 55 stations, was 30.7°, which was 1.3° below the mean for March, 1914. The mean departure from the normal for 66 stations having ten or more years' record was -0.2°. The average March temperature since 1888, as compared with that of the present year, has been higher in 16 years, and lower in 11 years. The highest March average during this period was 0.8°, in 1903; the lowest, 27.7°, in 1906. The average temperature of the several states of the section, was as follows: Maine, 28.8°; New Hampshire, 28.9°; Vermont, 26.0°; Massachusetts, 33.2°; Rhode Island, 33.9°; Connecticut, 33.8°. The departures from the normal were as follows: Maine, +1.6°; New Hampshire, -0.2°; Vermont, -1.4°; Massachusetts, -0.4°; Rhode Island, -1.2°; Connecticut, -0.6°. The highest monthly mean was 37.6°, at New London, Conn.; the lowest, 22.3°, at Glencliff, N. H. The highest recorded was 2°, at Cornish, Me., on the 24th; the lowest, -10°, at Greenville, Me., on the 27th. The range for the section was 72°. The greatest local monthly range was 58°, at Greenville, Me.; the least, 22°, at Nantucket, Mass., and Block Island, R. I. The greatest daily range was 44°, at Patten, Me., on the 29th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 15 stations reporting,

was 62 per cent, which was 12 per cent below the normal. The highest monthly average was 73 per cent, at Northfield, Vt.; the lowest, 49 per cent, at New Haven, Conn.

## PRECIPITATION.

The average for the section, as shown by the records of 85 stations, was 0.21 inch, which was 3.90 inches below the average for March, 1914, and also the lowest for any March of record. The previous lowest for the month since the beginning of the section averages in 1888, was 1.44 inches in 1910; the greatest March average during this period was 6.43 inches in 1899. The average for the several states was as follows: Maine, 0.33 inches; New Hampshire, 0.18; Vermont, 0.29; Massachusetts, 0.07; Rhode Island, 0.20; Connecticut, 0.22. For the section as a whole, the precipitation was 3.69 inches below the normal for the month. The departures from the normal for the several states were as follows: Maine, -3.67 inches; New Hampshire, -3.33; Vermont, -2.68; Massachusetts, -3.92; Rhode Island, -4.33; Connecticut, -4.16. The greatest monthly amount was 1.56 inches, at Van Buren, Me.; the least, 0.00, at Rockport, Mass. The greatest amount in 24 hours was 0.55 inch, at Van Buren, Me., on the 20th. The average snowfall for the section was 1.7 inches, which was 8.9 inches below the average for March, 1914, and 9.1 inches below the normal for the month, as determined from the records of the past 28 years. The average amount in the several states was as follows: Maine, 3.04 inches; New Hampshire, 1.4; Vermont, 2.4; Massachusetts, 0.5; Rhode Island, 1.3; Connecticut, 1.5. The average number of days with .01 inch or more of precipitation was 3, 7 less than the normal number for the month.

## WIND.

The prevailing direction of the wind was from the northwest, which is the normal direction for the month. The average monthly wind movement for the section, 15 stations reporting, was 9,435 miles. The average hourly velocity was 12.7 miles, 0.5 of a mile greater than the average of March last year, 0.7 above the normal for the month, as determined from the records of the past 28 years. The greatest monthly wind movement was 16,590 miles, at Block Island, R. I.; the least, 6,123 miles, at Concord, N. H. The highest velocity recorded was 71 miles per hour from the northwest, at Block Island, R. I., on the 30th. This is about the usual March maximum velocity.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 18; partly cloudy, 8; cloudy, 5. The normal for month is 12 clear, 8 partly cloudy, and 11 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having selfrecording instruments, was 74, which was 19 per cent above the normal, and also the greatest amount of sunshine recorded in any March since the beginning of the record in 1893. The previous greatest amount was 64 per cent in 1905; the smallest amount in any March was 31 per cent in 1899. The greatest percentage of possible sunshine was 83, at Providence, R. I.; the least, 61, at Northfield, Vt.

## DATES OF MISCELLANEOUS PHENOMENA.

*Thunderstorms.*—None.

*Halos, Lunar.*—Blue Hill, Mass., 28, 29, 30; Nantucket, Mass., 25, 29.

*Halos, Solar.*—Northfield, Vt., 7, 8, 10, 30; Woodstock, Vt., 7, 8, 30; Blue Hill, Mass., 8; Boston, Mass., 8, 30; Block Island, R. I., 6; New Haven, Conn., 5, 10, 18, 26.

*Auroras.*—Cornish, Me., 8; Eastport, Me., 4, 7, 9, 24; Bethlehem, N. H., 8, 18, 19; Hanover, N. H., 8, 9, 15, 18, 19, 20; Newton, N. H., 18, 19; Cavendish, Vt., 9, 18, 19; Enosburg Falls, Vt., 7, 8; Hyde Park, Vt., 18; Blue Hill, Mass., 13.



## Climatological Data for March, 1915.

Stations.		Counties.	Elevation, feet.	Length of record, years.	Mean.	Temperature, in degrees Fahr.					Precipitation, in inches.					No. of days—					Observer.
						Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.	Cloudy.	Prevailing direction of wind.	
Maine.																					
Bar Harbor	Hancock	20	29	30.8	-0.4	57	25	12	27	29	T.	-5.37	T.	T.	0	14	11	6	nw.	William Miller.	
Cornish	York	778	60	34.0	+4.7	62	24	11	30	41	0.21	-4.11	0.08	1.0	4	16	10	5	nw.	T. H. West.	
Eastport	Washington	53	43	29.9	-1.0	53	25	10	27	26	0.57	-3.71	0.20	4.8	8	5	17	8	w.	U. S. Weather Bureau.	
Fairfield	Somerset	90	30	30.0	+2.2	56	25	7	30	35	0.13	-3.06	0.13	2.0	1	15	8	8	.....	E. F. Parker.	
Farmington	Franklin	450	18	29.8	-0.4	55	24	10	41	30	0.13	-4.11	0.07	0.5	3	14	12	4	nw.	State Normal School.	
Gardiner	Kennebec	163	23	30.8	+0.5	56	24	11	30	35	0.12	-3.89	0.05	0.5	3	24	4	3	n.	Samuel D. Soule.	
Greenville	Piscataquis	1,140	11	23.2	.....	48	25	-10	27	30	0.24	-2.80	0.08	2.0	4	.....	.....	.....	.....	U. S. Weather Bureau.	
Houlton	Aroostook	362	13	25.8	.....	48	25	5	3	28	0.35	-1.94	0.20	7.0	3	12	6	13	w.	Bangor & Aroostook R.R.	
Lewiston	Androscoggin	185	32	31.0	+2.2	54	24	11	3	30	0.17	-4.86	0.07	1.5	5	17	9	5	nw.	Union Water Power Co.	
Madison	Somerset	257	12	27.4	.....	53	26	9	13	32	0.31	-3.57	0.15	1.9	4	23	4	4	nw.	William Jardine.	
Millinocket	Penobscot	386	12	28.2	.....	54	24	9	13	33	0.11	-3.39	0.05	1.2	5	12	5	14	w.	Great Northern Paper Co.	
North Bridgton	Cumberland	450	22	30.6	+1.7	57	25	9	4	32	0.07	-4.13	0.03	1.0	4	16	12	3	w.	G. E. Chadbourne.	
Orono	Penobscot	129	46	31.5	+3.9	60	14	6	27	41	0.34	-3.75	0.29	0.5	2	16	7	8	n.	Department of Physics.	
Patten	do	550	13	26.1	.....	53	25	4	27	44	0.30	.....	0.30	3.0	1	10	13	6	n.	Bangor & Aroostook R.R.	
Portland	Cumberland	99	44	32.2	+0.2	54	25	12	3	28	0.09	-3.66	0.04	0.8	3	18	7	6	nw.	U. S. Weather Bureau.	
Presque Isle	Aroostook	1,000	6	23.7	.....	45	24	1	7	37	1.40	-3.66	0.04	13.0	6	11	11	13	w.	E. M. Libby.	
Rumford	Oxford	505	22	29.3	+1.8	50	24	10	3	28	0.21	-3.29	0.13	3.0	3	19	11	1	nw.	Charles A. Mixer.	
Schoodic	Piscataquis	300	.....	27.8	.....	54	24	7	13	37	1.16	.....	0.06	2.4	6	9	12	16	1	nw.	R. H. Cable.
Van Buren	Aroostook	510	11	23.2	.....	45	24	1	6	37	1.56	.....	0.55	12.5	9	5	17	.....	nw.	J. M. Thomas.	
Winslow	Kennebec	90	20	31.5	+1.6	55	24	10	30	33	0.18	-3.62	0.08	2.0	3	18	9	4	w.	Hollingsworth & Whitman.	
New Hampshire.																					
Alstead Center	Cheshire	1,120	11	27.8	-1.5	53	25	5	3	30	0.40	-3.39	0.20	4.0	2	27	2	2	nw.	State Sanatorium.	
Bethlehem	Grafton	1,470	23	23.4	-3.1	46	25	1	4	26	0.47	-2.67	0.15	3.5	4	18	4	9	nw.	Benjamin Tucker.	
Concord	Merrimac	350	55	31.7	+0.2	55	25	10	3	28	T.	-3.40	T.	T.	0	20	9	2	nw.	U. S. Weather Bureau.	
Durham	Stafford	88	20	32.2	+0.7	58	25	9	4	33	0.05	-4.31	0.05	T.	1	19	7	5	nw.	Agr. Exp. Station.	
Franklin	Merrimac	440	16	30.7	-0.4	56	25	8	3	31	0.06	-3.08	0.04	T.	2	20	8	3	nw.	Dr. C. P. Webster.	
Glencliff	Grafton	1,650	.....	22.3	.....	47	26	0	4	27	0.72	.....	0.30	6.0	5	15	8	8	nw.	Frank Dewing.	
Grafton	do	863	29	27.3	+0.2	54	25	5	4	36	0.02	-2.98	0.02	0.5	1	27	5	1	nw.	P. R. Kimball.	
Hanover	do	603	81	28.1	+0.7	52	24	6	4	33	0.03	-2.56	0.01	0.5	3	15	8	8	nw.	Dartmouth College.	
Keene	Cheshire	506	30	29.6	-1.0	56	25	9	4	36	0.04	-3.04	0.03	0.4	2	18	9	4	nw.	Samuel Wadsworth.	
Nashua	Hillsboro	125	30	33.8	-1.6	60	25	11	4	36	T.	-4.16	T.	0.0	0	15	11	5	nw.	C. B. Stevens.	
Newton	Rockingham	126	27	31.6	-0.2	58	24	9	3	34	0.16	-3.44	0.10	T.	2	19	11	1	nw.	W. C. Gale.	
Plymouth	Grafton	500	27	27.8	+0.9	50	25	4	27	28	0.16	-3.58	0.07	2.2	3	23	0	8	nw.	Hattie G. Trow.	
Vermont.																					
Bloomfield	Essex	8	22.8	.....	.....	48	25	-1	30	34	0.41	-2.31	0.17	4.8	4	12	7	12	n.	Lyman Falls Power Co.	
Burlington	Chittenden	404	8	25.6	-1.7	48	25	5	3	22	0.22	-1.61	0.13	3.2	5	10	12	9	n.	U. S. Weather Bureau.	
Cavendish	Windsor	910	12	27.1	.....	52	25	5	4	30	T.	-2.75	T.	0.0	0	17	7	7	.....	Colonial Power Co.	
Chelsea	Orange	840	20	26.1	+1.1	50	25	4	3	34	0.20	-3.55	0.08	1.0	3	15	9	7	n.	W. F. Dewey.	
Cornwall	Addison	517	22	27.2	-1.9	52	24	7	3	32	0.17	-2.13	0.12	1.0	2	17	11	3	n.	C. H. Lane.	
Enosburg Falls	Franklin	601	24	22.8	-4.6	49	25	0	15	34	0.63	-2.41	0.24	5.5	6	15	9	7	n.	J. W. Pomeroy.	
Hyde Park	Lamoille	576	3	25.2	.....	50	25	3	19	31	0.53	.....	0.28	6.5	5	16	5	10	w.	A. V. Wiswell.	
Northfield	Washington	876	29	24.9	-1.3	49	25	5	3	28	0.25	-2.58	0.16	1.6	5	11	12	8	n.	U. S. Weather Bureau.	
Somerset	Windham	2,096	4	25.8	.....	45	24	3	3	27	0.45	.....	0.25	3.8	6	19	10	2	nw.	Power Construction Co.	
St. Johnsbury	Caledonia	711	22	26.5	0.0	51	25	5	30	30	0.30	-2.72	0.13	3.2	4	15	8	8	n.	Fairbanks Museum.	
Vernon	Windham	310	.....	30.7	.....	55	25	14	1	29	0.09	-3.46	0.09	0.0	1	18	10	3	nw.	Conn. River Power Co.	
Wells	Rutland	750	24	24.2	+0.7	46	25	0	4	25	0.37	-2.71	0.17	2.0	4	17	12	2	nw.	E. R. Pember.	
Woodstock	Windsor	700	23	28.4	+0.7	47	24	7	3	32	0.09	-3.13	0.08	T.	2	14	12	5	.....	John S. Eaton.	
Massachusetts.																					
Amherst	Hampshire	222	26	33.0	-0.3	57	25	13	3	31	0.12	-3.75	0.05	0.5	3	21	9	1	nw.	Agr. Exp. Station.	
Blue Hill	Norfolk	640	31	30.8	-1.5	54	25	9	4	31	0.06	-4.34	0.02	0.6	4	20	6	5	w.	Blue Hill Observatory.	
Boston	Suffolk	124	45	35.8	+0.8	60	25	13	3	31	T.	-4.08	T.	T.	0	20	8	3	nw.	U. S. Weather Bureau.	
Chestnut Hill	do	124	35	34.7	+0.4	58	25	12	4	30	T.	-4.34	T.	T.	0	28	0	3	.....	Met. Water Board.	
Clinton	Worcester	370	19	33.8	.....	59	25	11	3	27	0.06	-3.55	0.06	T.	1	.....	.....	.....	.....	Do.	
Concord	Middlesex	139	25	32.8	-1.4	57	25	11	3	32	T.	-3.43	T.	T.	0	20	6	5	nw.	Fred A. Tower.	
Fall River	Bristol	200	49	34.4	-1.6	57	27	13	3	28	0.05	-4.70	0.03	0.08	2	20	11	0	nw.	C. V. S. Remington.	
Fitchburg	Worcester	550	32	32.9	+1.1	57	24	10	4	34	T.	-3.85	T.	T.	0	23	7	1	nw.	Dr. A. P. Mason.	
Framingham	Middlesex	160	35	33.8	-0.4	58	25	10	4	33	0.04	-4.39	0.02	0.5	3	.....	.....	.....	.....	Met. Water Board.	
Hyannis	Barnstable	31	24	.....	.....	57	24	10	3	31	T.	-3.96	T.	T.	0	18	12	1	nw.	C. F. Sleeper.	
Lawrence	Essex	51	31	33.0	+0.4	57	24	10	3	31	T.	-3.96	T.	T.	0	18	12	1	nw.	Essex Company.	
Lowell	Middlesex	100	30	34.6	+2.1	57	25	11	4	32	0.01	-4.15	0.01	T.	1	.....	.....	.....	.....	Props. Locks & Canals.	
Middleboro	Plymouth	53	29	32.8	-1.4	57	19	10	4	39	0.06	-4.30	0.06	0.5	2	18	4	9	nw.	Ralph Sampson.	
Nantucket	Nantucket	47	29	35.0	-1.8	52	25	17	3	22	0.25	-3.73	0.13	1.0	5	17	10	3	nw.	U. S. Weather Bureau.	
New Bedford	Bristol	88	103	34.4	-0.5	54	25	14	3	28	0.10	-4.23	0.05	T.	2	23	3	5	nw.	City Engineer.	
Norfolk	Norfolk	244	12	35.0	.....	60	24	15	4	38	T.	-3.40	T.	T.	0	19	4	8	nw.	Ruby H. Martyn.	
Plymouth	Plymouth	50	30	31.8	.....	54	21	11	4	32	0.08	-4.59	0.08	0.8	1	22	7	2	w.	L. B. Knapp.	
Provincetown	Barnstable	40	28	34.7	-0.9	54	25	17	4	23	T.	-3.93	T.	T.	0	21	10	0	nw.	Gideon Bowley.	
Rockport	Essex	25	13	33.6	+0.5	53	25	14	4	29	0.00	.....	0.00	0.0	4	20	9	2	w.	C. F. P. Bearse.	
Rutland	Worcester	1,160	13	29.6	.....	53	24	6	3	25	0.09	.....	0.04	0.8	4	20	9	2	w.	State Sanatorium.	
Springfield	Hampden	199	5	35.6	.....	61	25	14	4	32	0.15										



## Day of month.

Continued on page 24



## Daily Temperatures for March, 1915.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean	
Maine.																																	
Bar Harbor	Maximum	36	40	36	34	34	38	42	36	42	42	38	40	42	38	42	35	36	38	38	44	42	39	38	55	57	42	36	42	38	36	40	38
	Minimum	18	18	20	17	17	24	33	24	25	28	22	20	22	20	18	17	18	15	18	22	24	26	26	42	28	20	12	18	18	24	22	21
Cornish	Maximum	43	46	33	46	48	44	46	45	47	51	46	43	54	48	47	43	36	44	48	53	45	45	51	62	60	50	37	51	55	41	56	47
	Minimum	15	14	14	13	18	22	25	22	23	23	25	22	13	23	14	19	22	22	14	20	29	32	31	27	31	21	14	22	21	11	25	27
Eastport	Maximum	27	36	26	37	39	39	38	33	39	39	38	29	34	30	25	27	29	40	43	42	34	35	37	51	53	41	27	44	45	30	43	37
	Minimum	19	19	21	24	26	27	25	22	27	22	26	20	14	20	19	18	21	23	25	27	31	30	29	29	37	15	10	25	24	19	29	21
Greenville	Maximum	20	29	22	27	33	36	38	30	34	34	32	28	34	27	22	20	24	33	34	32	36	36	40	46	48	39	20	34	41	22	39	31
	Minimum	13	13	6	6	21	14	15	11	17	16	20	12	10	13	13	12	12	17	17	22	20	26	23	19	26	9	10	5	16	10	20	14
Millinocket	Maximum	26	35	26	34	40	40	39	33	38	42	39	34	39	30	28	26	27	39	41	36	39	38	44	54	54	47	26	42	46	27	46	37
	Minimum	16	16	15	15	21	15	20	14	22	19	24	20	6	20	16	16	8	18	20	27	29	29	28	22	30	16	8	21	18	17	23	16
Orono	Maximum	32	32	38	37	42	44	44	39	39	42	39	33	38	60	43	27	34	38	42	38	40	42	40	55	56	56	38	44	49	50	49	42
	Minimum	17	15	18	15	14	22	23	19	24	20	20	22	12	19	18	17	20	24	20	24	31	41	29	21	28	33	6	17	25	12	22	22
Portland	Maximum	34	40	30	40	43	38	38	39	42	43	41	35	41	40	39	33	32	36	43	46	40	41	49	53	54	45	32	45	46	33	45	40
	Minimum	20	22	12	17	25	26	26	25	26	26	30	25	23	26	23	21	21	23	19	23	31	34	32	32	30	17	15	25	23	18	24	23
Presque Isle	Maximum	25	20	25	28	30	38	34	30	35	35	33	33	28	25	20	26	30	35	35	38	36	38	40	45	45	40	29	40	45	30	42	33
	Minimum	15	4	12	15	10	12	1	5	12	11	11	15	0	15	10	12	8	20	22	23	30	24	25	8	25	19	2	15	18	18	24	33
Rumford	Maximum	26	32	26	36	44	40	38	40	40	38	38	32	38	37	32	30	27	34	36	40	41	40	46	50	50	39	27	38	43	27	42	37
	Minimum	20	24	10	15	16	17	25	19	24	24	26	20	16	21	20	18	17	21	21	25	32	32	32	32	34	16	10	26	26	21	37	21
Van Buren	Maximum	20	24	26	32	34	38	38	29	37	34	32	28	28	26	21	24	30	34	32	35	33	37	36	45	45	40	20	32	38	33	38	32
	Minimum	15	3	14	18	11	1	7	8	9	10	21	14	4	14	9	14	3	10	25	26	30	30	31	10	16	18	1	15	17	17	18	14
New Hampshire.																																	
Alstead Center	Maximum	25	33	28	31	36	37	38	38	34	35	35	30	42	38	38	37	34	31	37	40	35	38	47	49	53	42	30	42	35	30	43	30
	Minimum	13	17	5	5	18	25	23	23	22	22	23	16	18	24	18	12	13	15	15	19	25	28	30	28	22	20	10	12	26	12	18	18
Bethlehem	Maximum	19	30	25	24	35	41	40	33	31	32	32	27	35	30	29	24	25	27	30	34	36	36	41	45	46	37	24	35	37	24	36	32
	Minimum	10	13	2	1	10	17	21	16	11	14	19	10	13	14	11	14	10	14	9	17	25	26	27	25	23	11	6	17	16	4	19	14
Concord	Maximum	34	40	27	38	42	42	43	41	40	40	39	34	45	38	37	41	35	35	40	44	43	43	48	54	55	44	31	44	40	34	48	40
	Minimum	19	25	10	14	19	26	28	24	21	26	29	20	24	28	23	21	20	19	22	30	31	31	26	28	18	15	23	25	16	25	22	20
Franklin	Maximum	32	37	31	37	44	42	45	41	38	40	39	33	45	37	37	40	33	36	40	44	42	45	48	55	56	46	32	45	38	34	42	40
	Minimum	17	20	8	8	15	23	26	25	21	21	28	18	20	25	21	19	19	17	21	27	29	29	24	28	22	14	21	24	13	23	20	20
Hanover	Maximum	31	36	29	34	43	40	41	38	36	36	37	30	44	35	35	38	29	32	38	44	40	41	49	52	52	41	32	44	35	33	45	38
	Minimum	14	17	7	6	18	20	22	22	15	14	25	16	11	24	15	16	15	18	10	14	26	30	30	23	21	18	13	19	22	10	17	17
Nashua	Maximum	38	43	36	43	46	42	45	41	43	46	42	38	43	42	40	47	39	40	47	48	48	45	52	59	60	52	37	51	52	37	53	45
	Minimum	18	25	13	11	18	25	28	21	25	29	23	24	22	21	23	23	23	20	16	20	24	32	30	23	27	32	16	20	25	21	25	22
Plymouth	Maximum	26	36	31	30	38	40	42	37	35	35	35	32	39	37	32	31	31	31	34	34	40	42	44	48	50	44	28	41	36	30	42	36
	Minimum	16	19	8	6	10	16	18	23	19	22	26	16	19	23	19	20	16	19	16	20	29	27	30	25	25	20	4	21	21	10	24	18
Vermont.																																	
Burlington	Maximum	28	35	20	24	33	37	33	25	31	34	35	23	40	30	31	28	25	25	34	38	36	36	47	46	48	34	31	40	34	30	35	35
	Minimum	14	20	5	8	18	16	20	13	15	12	19	12	13	17	16	18	19	11	19	28	30	30	26	28	29	14	14	24	19	13	22	35
Enosburg Falls	Maximum	25	28	20	28	38	39	34	24	34	33	31	20	36	28	31	25	22	30	35	36	38	39	40	45	49	39	29	41	34	28	33	32
	Minimum	10	8	4	6	12	10	21	4	8	4	15	0	2	12	0	18	14	18	2	8	28	25	21	20	23	15	10	20	21	8	22	12
Northfield	Maximum	26	34	21	27	35	36	37	39	31	32	33	24	40	32	30	31	25	38	33	39	37	36	46	47	49	40	28	40	32	30	37	33
	Minimum	13	21	5	10	20	15	16	14	14	15	21	13	12	16	10	18	15	16	8	13	27	29	27	23	24	12	12	16	14	7	20	16
St. Johnsbury	Maximum	24	33	31	29	38	41	39	36	34	35	35	33	38	38	31	31	30	30	34	40	40	46	48	51	47	27	41	40	28	39	36	36
	Minimum	14	13	8	7	17	17	12	18	12	20	14	8	17	11	18	16	18	6	12	28	30	30	30	22	22	18	6	20	31	5	22	16
Wells	Maximum	25	35	30	24	30	42	34	30	24	28	26	12	32	30	30	34	26	24	34	38	36	38	44	44	46	40	28	40	36	28	34	33
	Minimum	3	14	5	0	8	18	14	6	18	16	12	18	2	13	20	10	14	12	15	10	15	26	26	26	26	20	10	18	18	10	15	15
Massachusetts.																																	
Amherst	Maximum	37	39	26	44	41	43	44	42	43	43	41	39	48	45	43	45	40	38	47	47	4											



Scale of Shades.





## Daily Precipitation for March, 1915—Continued from page 21.

		Day of month.																															Total.
Stations.	Watershed.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
</																																	

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight. \* Precipitation indicated in that of following day.

† Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.

## Comparative Data for New England for March.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.							
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.
1888....	28.9	63	-23	5.59	12	26.3	10	11	10	....	nw.	13.3	72	e.	1902....	38.8	69	-6	5.87	2.69	13	13.3	11	8	12	44	nw.	12.9	72	ne.
1889....	35.5	72	-6	2.46	9	5.6	9	8	14	....	ne.	12.9	72	ne.	1903....	40.8	89	-17	5.94	3.43	11	2.1	11	6	14	53	sw.	9.7	50	s.
1890....	32.5	73	-22	6.28	15	22.8	8	10	13	....	nw.	11.4	60	ne.	1904....	30.2	71	-23	2.79	2.34	10	8.4	12	7	12	54	nw.	10.8	61	w.
1891....	31.6	63	-22	4.68	10	12.6	11	8	12	....	nw.	13.8	70	ne.	1905....	31.4	82	-27	2.48	1.88	8	4.6	15	7	9	64	nw.	8.9	49	nw.
1892....	29.7	61	-16	3.20	9	14.2	14	8	9	....	nw.	14.0	77	ne.	1906....	27.7	58	-27	3.10	3.20	11	21.4	13	8	10	57	nw.	11.5	66	s.
1893....	29.7	64	-25	3.33	9	6.4	11	8	12	....	nw.	11.8	61	nw.	1907....	32.7	84	-32	2.04	2.00	9	10.4	13	8	10	54	nw.	10.4	77	nw.
1894....	34.3	79	-13	1.49	9	9.7	12	13	9	....	sw.	11.0	54	nw.	1908....	33.1	77	-22	2.77	2.15	12	7.4	10	9	12	53	nw.	11.3	70	s.
1895....	30.2	60	-18	2.66	11	11.0	9	6	16	....	sw.	16.3	72	ne.	1909....	31.2	61	-22	3.36	3.00	10	9.1	14	7	10	56	nw.	12.3	87	se.
1896....	27.9	66	-20	6.15	13	21.0	10	9	13	....	nw.	12.6	58	nw.	1910....	37.7	83	-17	1.44	2.30	6	1.7	16	8	7	61	nw.	10.0	66	s.
1897....	32.4	66	-28	3.63	15	11.0	9	6	16	....	sw.	10.1	72	nw.	1911....	29.6	68	-20	3.64	1.75	11	13.8	15	7	9	60	nw.	12.3	70	nw.
1898....	38.4	69	-12	2.08	13	9	4.7	12	8	....	sw.	12.7	78	w.	1912....	30.0	66	-28	5.53	3.58	10	9.7	16	6	9	57	nw.	11.6	79	s.
1899....	29.9	65	-19	6.43	16	24.8	8	7	16	....	sw.	12.7	78	w.	1913....	37.0	76	-36	5.06	2.66	13	1.6	11	6	14	47	sw.	13.0	64	se.
1900....	27.8	59	-30	5.17	8	16.6	15	9	7	....	nw.	13.0	79	s.	1914....	32.0	74	-15	4.11	5.72	10	10.6	11	8	12	45	nw.	12.2	86	se.
1901....	31.5	64	-24	5.43	12	7.4	8	8	15	....	nw.	12.0	55	s.	1915....	30.7	62	-10	0.21	0.55	3	1.7	18	8	5	74	nw.	12.7	71	nw.



U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

NEW ENGLAND SECTION

APRIL, 1915

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BY  
JOHN W. SMITH  
DISTRICT FORECASTER AND SECTION DIRECTOR

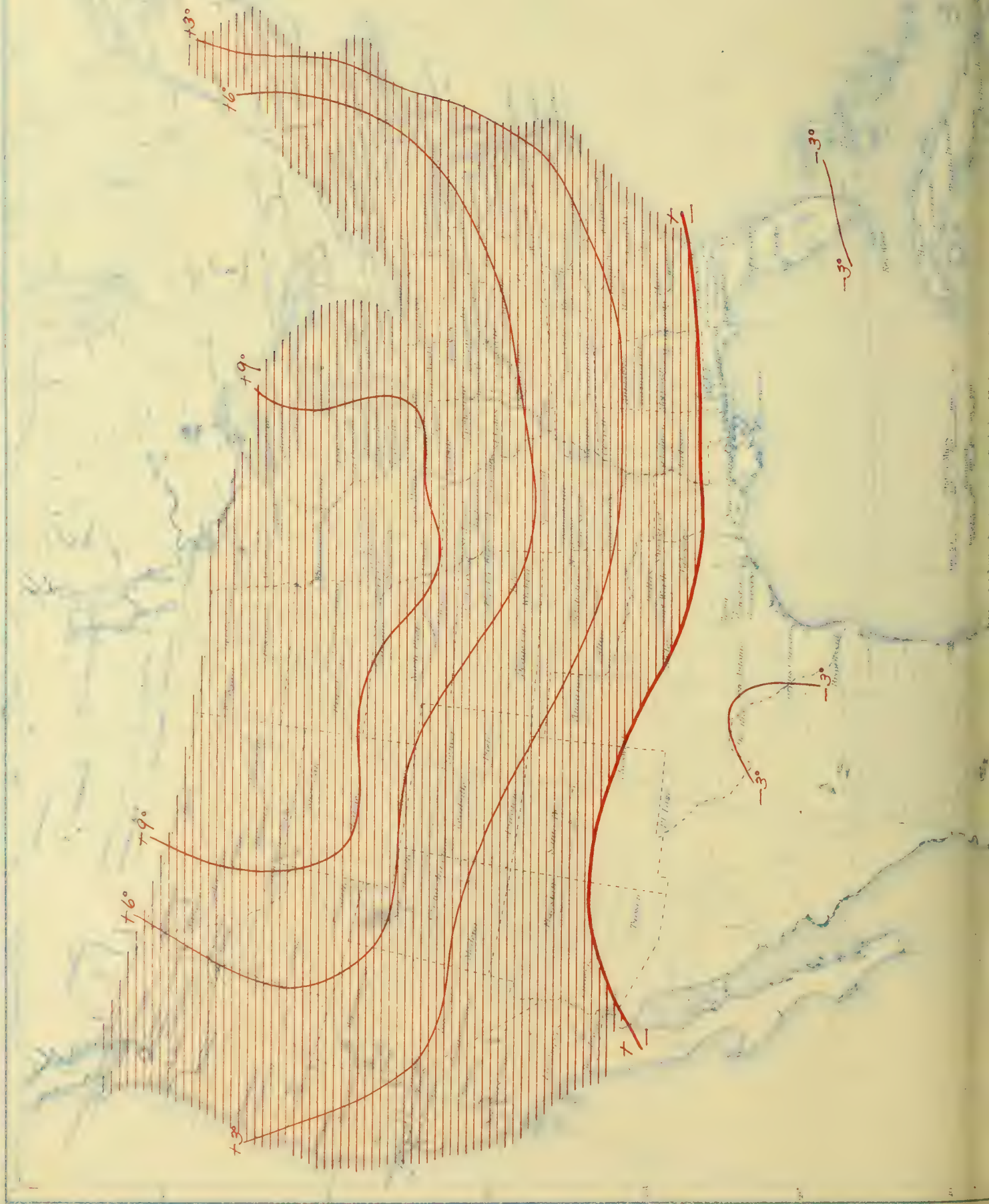
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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
MAY 17, 1915



Departure of the Mean Temperature from the Normal, April, 1915.





U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

NEW ENGLAND SECTION.

J. W. SMITH, District Forecaster and Section Director.

PL. XXVII. BOSTON, MASS., APRIL, 1915.

No. 4.

GENERAL SUMMARY.

The month was much warmer than usual, the average temperature with one exception, being the highest for April in the record extending back to 1888. The precipitation was below normal, and the least for April for several years. The greater portion fell during the first and third decades—only scattered light showers occurring between the 13th and 22d. The total for the month was somewhat greater in Maine and New Hampshire than in the remainder of the section. The snowstorm on the 3d was severe and unusually heavy for the season. From 6 to 13 inches fell in the greater portion of all the states except Vermont, where only small amounts occurred. The high wind used the snow to drift greatly, delaying all transportation. The snow melted rapidly and disappeared within a few days. The conditions during the month were generally favorable, although more rain would have been beneficial. At the close of the month the season was considered to be somewhat more advanced than usual.

PRESSURE.

The mean sea-level atmospheric pressure for the section, 15 stations reporting, was 30.03 inches, and 0.06 inch above the normal for the month. The highest monthly mean was 30.05 inches, at Burlington, Vt.; the lowest, 30.01 inches, at Nantucket, Mass., and Block Island, R. I. The highest recorded was 30.59 inches, at Nantucket, Mass., on the 22d; the lowest, 29.26 inches, at Nantucket, Mass., on the 4th. The monthly range for the section was 1.33 inches.

TEMPERATURE.

The monthly mean for the section, as shown by the records of 66 stations, was 48.0°, which was 7.2° above the mean for April, 1914, and the highest for the month since 1910. The normal departure from the normal for 66 stations having ten or more years' record was +4.4°. The average April temperature for 1888, as compared with that of the present year, has been higher in only one year, and lower in 27 years. The highest average April temperature in this period was 48.7°, in 1910; the lowest, 40.0°, in 1907. The average temperature of the several states of the section, was as follows: Maine, 44.1°; New Hampshire, 48.1°; Vermont, 47.9°; Massachusetts, 49.0°; Rhode Island, 47.6°; Connecticut, 50.8°. The departures from normal were as follows: Maine, +3.9°; New Hampshire, +1°; Vermont, +6.2°; Massachusetts, +4.0°; Rhode Island, +2.6°; Connecticut, +5.0°. The highest monthly mean was 53.4°, at New London, Conn.; the lowest, 39.6°, at Eastport, Me. The highest recorded was 93°, at Bridgeport, Conn., on the 25th; the lowest, 15°, at Greenville, Me., on the 3d, and Northfield, Vt., on the 6th. The range for the section was 78°. The greatest local monthly range was 76°, at Voluntown, Conn.; the least, 40°, at Nantucket, Mass. The greatest daily range was 48°, at a number of stations on several dates.

HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 15 stations reporting, was 71 per cent, which was 2 per cent above the normal. The greatest monthly average was 88 per cent, at Block Island, R. I.; the lowest, 62 per cent, at Hartford, Conn.

PRECIPITATION.

The average for the section, as shown by the records of 84 stations, was 2.24 inches, which was 2.42 inches below the average

for April, 1914, and the lowest for the month since 1911. Since the beginning of the section averages in 1888, the precipitation in April has been greater in 21 years and less in 6 years than in present year. The greatest average amount for April in this period was 6.80 inches in 1901; the least, 1.02 inches, in 1892. The average for the several states was as follows: Maine, 3.08 inches; New Hampshire, 2.41; Vermont, 1.78; Massachusetts, 2.09; Rhode Island, 1.75; Connecticut, 1.97. For the section as a whole, the precipitation was 0.94 inch below the normal for the month. The departures from the normal for the several states were as follows: Maine, +0.13 inches; New Hampshire, -0.49; Vermont, -0.64; Massachusetts, -1.17; Rhode Island, -2.23; Connecticut, -1.82. The greatest monthly amount was 4.78 inches, at Madison, Me.; the least, 0.60 inch, at Rockport, Mass. The greatest amount in 24 hours was 2.23 inches, at Millinocket, Me., on the 30th. The average snowfall for the section was 5.2 inches, which was 0.8 inch above the average for April, 1914, and 1.7 inches above the normal for the month, as determined from the records of the past 28 years. The average amount in the several states was as follows: Maine, 4.3 inches; New Hampshire, 4.6; Vermont, 2.3; Massachusetts, 6.3; Rhode Island, 6.3; Connecticut, 7.0. The average number of days with .01 inch or more of precipitation was 8, 2 less than the normal number for the month.

WIND.

The prevailing direction of the wind was from the northwest, which is the normal direction for the month. The average monthly wind movement for the section, 15 stations reporting, was 7,865 miles. The average hourly velocity was 10.9 miles, which was 1.6 miles less than the average for April last year, and 0.3 below the normal for the month, as determined from the records of the past 28 years. The greatest monthly wind movement was 11,800 miles, at Nantucket, Mass.; the least, 4,399 miles, at Concord, N. H. The highest velocity recorded was 79 miles per hour from the northeast, at Nantucket, Mass., on the 3d. This is a greater maximum velocity than usually occurs in April.

SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 11; partly cloudy, 9; cloudy, 10. The normal for month is 11 clear, 8 partly cloudy, and 11 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 51, which was 4 per cent below the normal, 6 per cent below the average of the month last year, and the least for April since 1909. Since the beginning of the automatic records in 1893, the greatest amount in any April was 71 per cent in 1899; the least, 36 per cent, in 1901. The greatest percentage of possible sunshine was 62, at Providence, R. I.; the least, 32, at Eastport, Me.

DATES OF MISCELLANEOUS PHENOMENA.

*Halos, Solar.*—Grafton, N. H., 1, 3, 6, 10, 11, 24, 28, 30; Northfield, Vt., 4, 5, 16; Woodstock, Vt., 5, 17; Blue Hill, Mass., 5, 12; Somerset, Mass., 5, 12; New Haven, Conn., 5, 16.

*Halos, Lunar.*—Grafton, N. H., 2, 7, 9; Woodstock, Vt., and New Haven, Conn., 27; Blue Hill, Mass., 2, 3; Boston, Mass., 5.

*Auroras.*—Eastport, Me., 17, 19, 20, 22; N. Bridgton and Van Buren, Me., 18; Burlington, Vt., 7, 17; Cavendish, Vt., 8; Northfield, Vt., 7, 19; Concord, Mass., 7, 18; Hingham, Mass., 5.

*Thunderstorms* (dates and number of observers reporting on each): Maine—12th, 3; 25th, 5; 26th, 12; 27th, 2. New Hampshire—10th, 1; 11th, 6; 12th, 1; 25th, 3; 26th, 5; 29th, 7; 30th, 8. Vermont—11th, 2; 12th, 1; 25th, 5; 26th, 6; 28th, 1; 29th, 4; 30th, 3. Massachusetts—10th, 10; 11th, 13; 12th, 1; 16th, 1; 25th, 1; 26th, 6; 27th, 1; 29th, 1; 30th, 13. Rhode Island—6th, 1; 10th, 1; 11th, 4; 13th, 1; 27th, 2; 28th, 2; 30th, 5. Connecticut—10th, 6; 11th, 12; 13th, 1; 14th, 1; 26th, 1; 27th, 3; 28th, 1; 29th, 1; 30th, 8.



## Climatological Data for April, 1915.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.					Precipitation, in inches.				No. of days—				Prevailing direction of wind.	Observer.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.			Partly Cloudy.
Maine.																			
Bar Harbor	Hancock	20	29																William Miller.
Cornish	York	778	60	48.3	+5.5	83	27	21	5	46	3.22	-0.32	1.13	6.0	6	7	10	13	T. H. West.
Eastport	Washington	53	43	39.6	+1.3	67	20	27	4	33	3.58	+0.56	1.16	11.6	17	3	10	17	U. S. Weather Bureau
Fairfield	Somerset	90	30	45.8	+6.8	77	26	20	3	42	2.41	+0.11	2.02		2	17	4	9	E. F. Parker.
Farmington	Franklin	450	18	45.6	+3.2	83	26	20	3	46	3.12	+0.53	1.22	1.5	10	11	10	9	State Normal School.
Gardiner	Kennebec	163	23	44.4	+0.8	71	26	17	5	37	1.89	-1.50	0.62	6.0	13	9	4	17	Samuel D. Soule.
Greenville	Piscataquis	1,140	11	40.8		72	26	15	3	38	3.49	+0.71	1.46	3.0	11				U. S. Weather Bureau
Houlton	Aroostook	362	13	41.4		64	12	20	4	30	1.63	-0.37	0.48		6	10	9	11	Bangor & Aroostook
Lewiston	Androscoggin	185	32	45.6	+3.8	74	26	24	5	36	3.32	+0.05	1.18	6.5	13	7	11	12	Union Water Power Co.
Madison	Somerset	257	12	43.8		79	29	20	3	39	4.78	+0.85	2.17	0.8	12	15	5	10	William Jardine.
Millinocket	Penobscot	386	12	42.6		70	19	20	3	36	4.41	+1.11	2.23	3.3	14	11	5	14	Great Northern Paper Co.
North Bridgton	Cumberland	450	22	47.4	+4.5	85	26	23	3	48	2.74	-0.62	1.08	5.0	9	6	16	8	G. E. Chadbourn.
Orono	Penobscot	129	46	45.4	+4.9	73	20	20	3	37	3.30	+0.39	1.30	13.0	11	13	3	14	Department of Physics
Patten	do	550	13	42.0		70	10	21	3	44	2.90		1.00	0.0	5	7	7	12	Bangor & Aroostook
Portland	Cumberland	99	44	45.8	+2.8	68	26	29	4	30	3.43	+0.20	1.33	8.6	12	7	5	18	U. S. Weather Bureau
Presque Isle	Aroostook	1,000	6																E. M. Libby.
Rumford	Oxford	505	22	45.4	+4.0	78	26	23	3	38	3.48	+0.39	1.69	1.8	8	16	7	7	Charles A. Mixer.
Schoodic	Piscataquis	300																	R. H. Cable.
Van Buren	Aroostook	510	11	39.9		65	11	17	5	38	1.99	+0.03	0.66	2.5	9	11	8	11	J. M. Thomas.
Winslow	Kennebec	90	20	46.6	+5.4	77	26	20	3	40	2.70	-0.06	0.71	3.0	10	13	7	10	Hollingsworth & Whitney
New Hampshire.																			
Alstead Center	Cheshire	1,120	11	48.9	+4.9	82	27	25	5	40	2.94	-0.08	1.22	6.0	7	19	6	5	Frank Dewing.
Bethlehem	Grafton	1,470	23	45.6	+5.1	78	26	20	3	39	3.26	+0.68	1.16	T.	9	17	6	7	Benjamin Tucker.
Concord	Merrimac	350	55	48.4	+4.6	84	26	24	5	45	2.62	-0.31	1.43	3.3	8	11	10	9	U. S. Weather Bureau
Durham	Stafford	88	20	47.4	+3.4	84	26	24	5	46	1.75	-1.28	0.69	2.0	11	11	10	9	Agr. Exp. Station.
Franklin	Merrimac	440	16	49.6	+6.4	86	26	21	5	46	3.29	+0.09	1.81	5.5	10	13	10	7	Dr. C. P. Webster.
Glencoff	Grafton	1,650	2																State Sanatorium.
Grafton	do	863	29	46.6	+5.3	83	26	16	5	46	2.42	-0.31	0.80	7.0	7	19	3	8	P. R. Kimball.
Hanover	do	603	81	48.4	+6.8	86	26	20	5	44	1.81	-0.54	0.62	4.9	10	11	9	10	Dartmouth College.
Keene	Cheshire	506	30	49.3	+5.2	87	27	17	5	46	2.61	-0.04	1.00	5.0	7	11	12	7	Samuel Wadsworth.
Nashua	Hillsboro	125	30	51.4	+5.9	89	26	20	5	48	1.69	-1.44	0.70	9.0	6	6	13	11	C. B. Stevens.
Newton	Rockingham	126	27	46.7	+2.3	86	26	19	5	46	1.92	-1.50	1.09	4.0	4	8	16	5	W. C. Gale.
Plymouth	Grafton	500	27	47.2	+6.0	83	26	20	5	44	2.18	-0.67	0.75	4.0	7	13	3	14	Hattie G. Trow.
Vermont.																			
Bloomfield	Essex		8	44.2		78	26	15	6	41	1.99	-0.79	9.70	T.	9	13	7	10	Lyman Falls Power Co.
Burlington	Chittenden	404	8	48.3	+7.6	82	26	24	3	35	0.73	-1.29	0.20	0.9	6	7	10	13	U. S. Weather Bureau
Cavendish	Windsor	910	12	48.6		89	27	17	5	48	2.18	+0.01	0.67	6.0	5	6	15	9	Colonial Power Co.
Chelsea	Orange	840	20	46.2	+6.3	83	26	16	14	45	1.63	-0.55	0.63	1.0	9	7	13	10	W. F. Dewey.
Cornwall	Addison	517	22	50.4	+5.1	85	26	24	5	35	0.63	-1.33	0.35		6	8	12	10	C. H. Lane.
Enosburg Falls	Franklin	601	24	48.3	+5.6	82	26	19	5	46	1.36	-1.15	0.35	0.5	10	15	7	3	J. W. Pomeroy.
Hyde Park	Lamoille	576	3	48.1		84	26	17	5	48	1.85	-0.64	0.64	1.0	9	11	8	11	A. V. Wiswell.
Northfield	Washington	876	29	45.8	+5.6	82	26	19	5	39	1.06	-1.22	0.45	1.4	11	9	7	14	U. S. Weather Bureau
Somerset	Windham	2,096	4	47.8		82	27	22	3	23	3.09	-0.86	0.86	7.6	8	10	13	7	Power Construction Co.
St. Johnsbury	Caledonia	711	22	48.5	+6.7	82	27	18	5	45	1.98	-0.27	0.45	T.	8	12	11	7	Fairbanks Museum.
Vernon	Windham	310		49.6	+4.0	86	25	26	4	46	2.63	-0.49	0.86	7.0	7	10	9	11	Conn. River Power Co.
Wells	Rutland	750	24	48.0	+7.2	80	26	25	14	30	2.00	-0.48	1.24	1.0	7	11	12	7	E. R. Pember.
Woodstock	Windsor	700	23	48.3	+7.5	84	26	22	5	39	1.95	-0.80	1.15	4.0	5	8	11	11	John S. Eaton.
Massachusetts.																			
Amherst	Hampshire	222	26	51.2	+5.8	88	25	22	5	42	3.99	+0.96	1.55	9.5	7	14	7	9	Agr. Exp. Station.
Blue Hill	Norfolk	640	31	48.4	+3.9	81	26	28	4	42	2.44	-1.16	0.86	10.0	11	5	12	13	Blue Hill Observatory.
Boston	Suffolk	124	45	50.8	+5.5	84	26	30	3	42	1.86	-1.97	0.71	6.1	6	10	8	12	U. S. Weather Bureau
Chestnut Hill	do	124	35	50.3	+3.7	84	27	23	5	42	2.92	-0.90	1.20	4.0	7	21	0	9	Met. Water Board.
Clinton	Worcester	370	19	49.3		85	27	24	3	44	1.70	-1.22	0.84	3.2	6				Do.
Concord	Middlesex	139	25	48.4	+3.3	86	26	18	5	45	2.13	-1.03	0.72	7.7	8	7	13	10	Fred A. Tower.
Fall River	Bristol	200	49	49.2	+2.4	85	27	30	4	39	2.21	-1.71	1.30	13.0	11	7	20	3	C. V. S. Remington.
Fitchburg	Worcester	550	32	50.6	+5.0	88	27	23	5	44	1.83	-0.29	0.52	8.0	6	16	7	7	Dr. A. P. Mason.
Framingham	Middlesex	160	35	50.4	+3.7	85	27	20	5	44	2.46	-1.14	1.10	6.0	7				Met. Water Board.
Hyannis	Barnstable	31	24									-2.62	0.49	6.0	7				C. F. Sleeper.
Lawrence	Essex	51	31	48.7	+2.6	85	26	23	5	44	0.84	-2.62	0.49	6.0	7	7	19	4	Essex Company.
Lowell	Middlesex	100	30	50.8	+5.5	82	26	24	5	40	2.23	-1.48	0.64	0.2	4				Props. Locks & Canal
Middleboro	Plymouth	53	29	47.4	+2.7	86	27	16	5	39	2.60	-0.67	1.00	10.0	12	6	9	15	Ralph Sampson.
Nantucket	Nantucket	47	29	45.5	+1.3	74	20	34	4	32	1.72	-1.58	1.06	T.	10	10	10	10	U. S. Weather Bureau
New Bedford	Bristol	88	103									-2.35	0.94	6.0	3	5	8	17	City Engineer.
Norfolk	Norfolk	244	12	50.4		84	27	28	2	40	1.02	-2.35	0.94	6.0	3	5	8	17	Ruby H. Martyn.
Plymouth	Plymouth	50	30	45.6		76	27	28	1	37	2.58	-1.76	1.19	10.0	6	16	4	10	L. B. Knapp.
Provincetown	Barnstable	40	28	45.4	+0.6	72	27	29	1	27	2.37	-0.93	1.20	0.0	8	11	9	10	Gideon Bowley.
Rockport	Essex	25	13	44.2		77	26	30	3	36	0.60	-0.27	0.50	3	12	6	12	6	C. F. P. Bearse.
Rutland	Worcester	1,160	13	48.0		85	27	20	3	47	1.85	-0.94	0.88	8.8	11	13	11	6	State Sanatorium.
Springfield	Hampden	199	5	53.5	+7.0	91	27	24	5	44	2.25	-0.98	0.80	9.0	11	8	13	9	U. S. Army.
Turners Falls	Franklin	200	29	50.4	+4.8	85	27	24	5	38	2.75	+0.18	0.76	6.0	8	12	6	12	Turners Falls Co.
Westboro	Worcester	298	41									-0.61	0.62	3.5	9	15	5	10	G. S. Newcomb.
Williamstown	Berkshire	711	34	49.4	+5.4	84	26	22	5	34	2.12	-2.06	0.52	6.2	6	11	12	7	Williams College.
Worcester	Worcester	518	23	51.2	+5.2	85	26	26	3	37	1.50		0.52	6.2	6	11	12	7	G. W. Swan.
Rhode Island.																			



## Daily Precipitation for April, 1915.

Stations.	Watershed.	Day of month.																															Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Maine.																																		
Ashland	St. John						T	.16			.08		.80				.03	.15													.62	1.84		
Bar Harbor	Coast																																	
Cambridge	Kennebec						.30				.14		.55														.45	.38	.12		.52	1.25	3.21	
Cornish	Saco		T	.50			.40				T	.60												T	.16		.13			T	.13		2.27	
Danforth	Penobscot			.02								.22	.28					.22							.07	.42	.22	.17					2.45	
Eastport***	Coast			.40	.76		.51				.07	.10	.06				.12	.23		.04	.10				.02	.04	.37	.37	.03		.08	.28	.82	
Eustis	Kennebec		T	T			.25	.01			.08	.02	.25												.07	.10	.61	.19	.02	.01	.75		2.36	
Fairfield	do											.40																					2.42	
Farmington	do			.05		.35	.02				.05		.48											T	T	.20	.60	.12	.03			1.22	3.12	
Gardiner	do			.62		.36	.01				.07	.03	.22				.04	.01							.03		.13	.30	.04		.03	T	1.80	
Greenville***	do		T			.30	T				.27	.32	.32				.04							T	.16	.42	.10	.02	T	.08	1.46		3.49	
Houlton	St. John										.28		.48				.17										.40		.10			.20	1.63	
Howe Brook	Penobscot		T			.02	.05				.10		.68				.12									.10		.10	.18	.42		.30	2.07	
Lewiston	Androscoggin			.40		.40					*	.14	.33				.01								*	.42	.42		.01	.01	1.18		3.32	
Madison	Kennebec			.12		.32					.20	.48					.02	.49	.49	.05	.07				.18	.60	.49	.05	.07	.08	2.17		4.78	
Millinocket	Penobscot					.26					.05	.18	.46	.17			.07	.05					T	.01	.49	.09	.08		.10	.07	2.23		1.41	
North Bridgton	Saco			.15		.40					.13	.32					.02	.22	.11	.01				.02	.22	.11	.01					1.08	2.74	
Oquossoc	Androscoggin						T			.30																.80						1.10	2.20	
Orono	Penobscot			1.30				.31			.07		.25				.18	.02								.28	.17	.41			.10	.21	3.30	
Patten	do												1.40	.40											1.00		.20	.30					2.90	
Portland***	Coast		T	.83	.03		.41				.01	.21	.04			T	.07								T	.02	.10	.38	T		.01	1.33	3.43	
Presque Isle	St. John											.05	.52	T																				
Rumford	Androscoggin			.03		.24																												
Schoodic	Piscataquis																																	
Van Buren	St. John						T	.15			.18	.12	.66					.12															1.99	
Winslow	Kennebec			.30		.34					.02	.35					.08								*	.54	.32			.04		.71	2.70	
New Hampshire.																																		
Alstead Center	Connecticut		T	T	.07	.11		.32				.52	.48																		.22	1.22	2.94	
Bethlehem	do		T	T		.03		.10			.04	.36	.06													1.16	.29	.29			.09	1.12	3.26	
Brookline	Merrimack			.50		.22						1.10																	.01	T		.65	2.48	
Concord***	do		T	.33	T	.23	T			T	T	.57						T								.01		.02		.03	1.10		2.62	
Durham	do			.03	.19			.32				.36				.01										.03	.04	.02	.01		.05	.69	1.75	
Franklin	do			.16	.21		.30				T	.21	.43												.01	.05		.03			.08	1.81	3.29	
Glencut	do																																	
Grafton	do			.36		.20						.32	.50														.02					.22	.80	2.42
Hanover	Connecticut		T	T	.04	.25		.25			T	.62	.04	T												.01	.02	.02	T			.15	.41	1.81
Kenne	do			.17	.13		.25				T	.42	.50																					2.61
Nashua	Merrimack			.34	.16		.20				T	.10	.19																				.70	1.69
Newton	do			.40		.25				T		.13					T																1.09	1.92
Plymouth	do		T	T	.07		.46	T			T	.40	.28													T	.09	.13				.75	2.18	
Vermont.																																		
Bloomfield	Connecticut						.11	T				.03	.09	.33													.42	.70			.03	.23	1.99	
Burlington***	Champlain		T	.08			.19	T			.04	.20	.1													.02	T	.02	.04		.11	.03	T	0.73
Caydonish	Connecticut				.55		.26					.54	.26																				.67	2.18
Chelsea	do			.02		.10					.08	.63																						1.63
Cornwall	Champlain						.05	.06	.15			.05	.06	.15												.04		.08	.08		.08	.52		0.63
Enosburg Falls.	do		T	T			.13	.03			.09	.04	.24	.04								T	.15		T	T	.23	.35		T	.08	.13	1.36	
Hyde Park	do					.22	.03				.03	.11	.35	T																		.11	.07	1.85
Northfield***	Champlain		T	.01		.12	.01				.11	.39	.01	T											T	.04	.15		.17		T	.04	.02	1.06
Somerset	Connecticut		.02		.37		.02	.36			.86	.35																				.42	.69	3.09
St. Johnsbury	do		T			.16	.01				.01	.17	.37	T													.42	.39		T		.45		1.98
Vernon	do			.26		.28					.38	.65																				.10	.86	2.63
Wells	Champlain		.13								T	1.24	.05																			.20	.17	2.00
Woodstock	Connecticut		T		.10	.25					T	.38	.07																				1.15	1.95
Massachusetts.																																		
Amblerst	Connecticut		T	.50		.29					.20	1.55	T																			.02	1.41	3.99
Ashland	Merrimack			* 1.12		.13						.25															.01					.01	.90	2.42
Bakers Bridge††	do			.32																							.50					.62		1.44
Bedford	do			.30	.14	.21					T	.09	.13					T																1.59
Blue Hill	Coast			.86	.21	.12					.05	.03	.21				T	.37									.02		.02			.68		2.44
Boston***	do		T	T	.47	.02	.13				T	.13					T	.40									T	T	T		T	.71		1.86
Brookton	Coast			.21	.51	.05					.18	.23					.03																	1.41
Chestnut Hill	do			.85		.15					T	.16					.51															.08		2.92
Clinton	Merrimack			* .84		.17					*	.24																.02				.03	1.20	1.70
Concord	do		T	.55	.17	.17					T	.05	.07																					

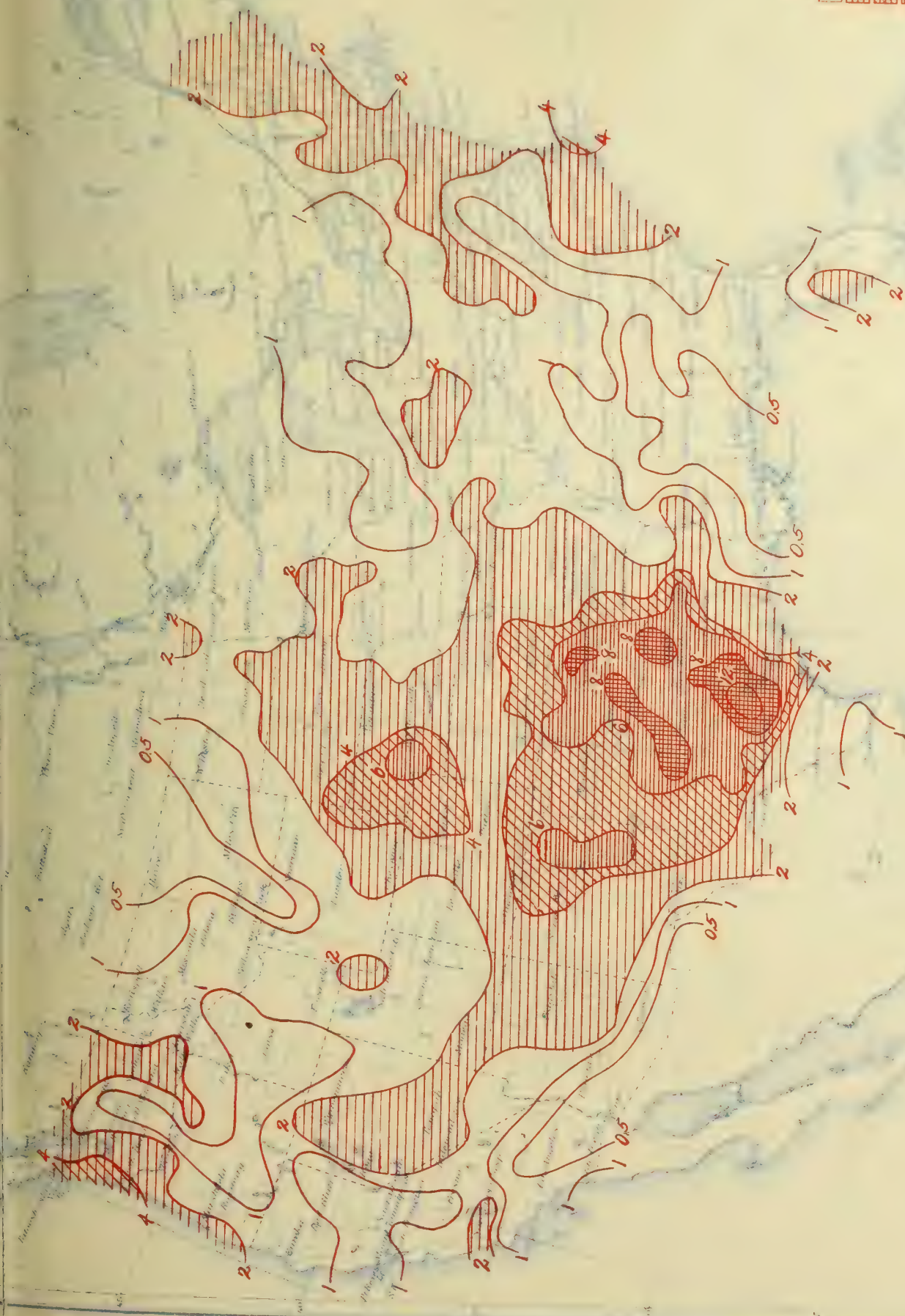
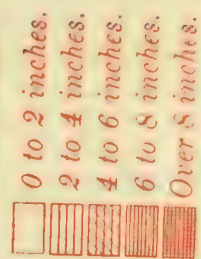


## Daily Temperatures for April, 1915.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Me
Maine.																																
Bar Harbor	Maximum	60	55	37	55	58	37	55	67	69	69	68	59	61	61	71	70	69	73	61	70	74	55	61	82	83	50	63	47	63	47	63
Bar Harbor	Minimum	33	28	27	29	21	30	31	29	38	49	48	31	27	25	34	30	34	32	37	35	24	47	41	30	38	44	40	40	37	40	35
Cornish	Maximum	47	45	36	36	39	41	41	52	42	43	51	51	53	46	42	43	46	41	52	67	47	53	50	43	32	43	39	46	10	40	43
Cornish	Minimum	34	29	27	27	27	32	34	33	32	38	38	38	35	36	32	37	37	38	37	34	32	32	41	36	33	34	36	36	37	35	35
Eastport	Maximum	40	37	36	43	47	36	40	47	55	46	67	58	46	53	56	53	58	60	65	55	46	61	53	47	40	72	59	45	45	43	53
Eastport	Minimum	29	28	15	27	17	23	31	27	26	34	38	44	33	25	32	36	32	31	42	25	26	40	35	33	34	52	39	36	37	34	35
Greenville	Maximum	47	44	39	42	52	45	44	55	56	48	69	63	51	55	54	53	61	62	70	63	51	61	56	52	43	66	57	49	48	47	53
Greenville	Minimum	32	31	20	30	20	26	31	31	24	35	38	46	32	23	23	37	41	30	26	25	27	25	41	36	33	36	42	54	50	50	53
Millinocket	Maximum	52	51	45	43	51	51	44	57	57	53	65	65	63	56	59	50	57	62	70	73	64	59	60	60	47	61	64	52	54	50	53
Millinocket	Minimum	32	31	20	30	20	26	31	31	24	35	38	46	32	23	23	37	41	30	26	25	27	25	41	36	33	36	42	42	38	35	35
Orono	Maximum	50	46	35	47	45	41	50	60	51	52	66	65	54	54	49	49	56	64	67	67	55	54	66	54	44	68	67	45	47	45	53
Orono	Minimum	35	34	29	29	30	34	40	35	35	40	43	43	38	36	35	40	30	42	43	47	38	35	46	40	39	38	40	40	39	35	35
Portland	Maximum	44	44	37	46	50	36	46	61	52	64	60	50	56	58	60	63	66	66	62	53	62	62	51	44	78	70	48	53	47	47	53
Portland	Minimum	31	30	23	32	24	28	34	34	30	38	44	46	36	29	27	36	36	40	40	33	30	46	40	40	40	48	43	41	38	41	40
Van Buren	Maximum	45	36	42	42	41	41	45	45	42	42	65	62	51	58	57	52	55	62	55	55	52	58	57	54	45	63	49	46	45	44	40
Van Buren	Minimum	29	27	17	26	17	17	32	33	28	33	36	40	35	20	23	32	36	34	26	37	25	22	39	27	30	35	36	35	38	35	35
New Hampshire.																																
Alstead Center	Maximum	44	45	35	42	45	45	47	57	62	65	61	57	51	55	57	68	59	63	69	66	58	62	69	66	81	81	82	58	72	61	53
Alstead Center	Minimum	29	24	20	26	25	35	36	33	38	45	32	48	34	30	33	38	41	38	42	52	34	31	34	52	42	41	58	42	43	42	53
Bethlehem	Maximum	40	39	33	41	48	38	42	52	62	66	64	55	47	55	57	63	58	62	63	60	55	65	64	56	66	78	75	65	74	61	58
Bethlehem	Minimum	27	29	20	26	20	31	32	32	31	40	52	45	32	24	26	29	29	30	37	47	25	26	39	47	42	40	59	40	42	41	42
Concord	Maximum	48	46	36	47	49	39	51	65	65	69	69	63	53	57	63	64	68	71	69	57	67	73	55	79	85	83	55	59	47	47	53
Concord	Minimum	35	33	27	29	24	34	36	32	42	45	52	45	37	30	30	38	32	37	47	40	35	27	45	40	40	44	41	40	39	39	39
Franklin	Maximum	48	46	37	47	52	41	50	61	69	71	66	63	54	63	63	68	69	74	69	52	69	75	67	83	86	84	51	63	61	61	61
Franklin	Minimum	33	35	27	29	21	32	34	32	30	37	51	52	36	27	28	38	33	41	49	39	35	24	42	45	41	40	51	42	40	39	39
Hanover	Maximum	47	44	36	47	51	39	50	58	63	72	67	50	52	61	65	68	63	68	71	68	56	68	73	61	81	86	83	54	72	56	63
Hanover	Minimum	29	30	23	29	20	31	34	29	28	44	52	42	35	22	24	30	33	40	38	39	33	28	42	49	42	43	53	45	43	42	42
Nashua	Maximum	51	50	44	49	50	41	53	65	69	72	69	67	63	61	57	63	68	69	75	76	72	67	76	76	82	89	84	58	68	63	63
Nashua	Minimum	35	30	28	38	20	35	35	32	30	43	54	53	37	30	33	37	37	41	43	39	27	44	46	40	41	56	41	41	42	42	42
Plymouth	Maximum	44	45	39	45	51	41	48	56	63	64	66	60	52	60	60	66	63	65	69	64	55	66	71	64	73	83	81	53	67	58	53
Plymouth	Minimum	32	30	23	30	20	29	34	31	28	34	46	48	35	28	22	30	36	36	39	35	34	22	31	47	41	41	52	44	41	41	41
Vermont.																																
Burlington	Maximum	46	40	37	42	49	41	48	56	60	69	68	55	46	51	58	61	54	61	68	60	49	66	61	69	76	82	76	67	74	58	53
Burlington	Minimum	31	29	24	28	26	33	34	34	34	44	52	37	30	26	28	32	37	30	45	40	31	31	46	49	53	50	57	52	51	46	46
Enosburg Falls	Maximum	44	40	37	41	50	43	51	56	64	73	71	61	48	55	63	63	57	64	69	65	54	70	63	68	73	82	76	69	79	50	51
Enosburg Falls	Minimum	29	32	23	28	19	37	33	35	28	40	51	42	33	20	21	26	33	24	39	49	23	24	50	51	54	53	53	50	50	51	51
Northfield	Maximum	45	42	35	41	49	39	45	54	61	71	67	55	45	54	60	63	57	62	69	60	50	67	68	60	78	82	77	51	69	57	53
Northfield	Minimum	30	23	19	24	19	32	33	30	30	37	47	35	24	19	22	27	30	25	40	38	26	23	45	49	47	43	51	45	45	39	39
S. Johnsbury	Maximum	46	44	41	44	51	47	46	56	65	67	68	60	52	61	64	68	64	69	69	58	68	59	69	71	81	82	77	72	70	73	73
S. Johnsbury	Minimum	28	31	20	30	18	28	34	29	28	36	52	47	35	20	24	22	32	27	40	39	28	23	44	47	44	44	55	46	45	45	45
Wells	Maximum	44	40	34	36	42	40	45	52	60	62	60	56	45	50	65	60	55	60	63	62	66	60	64	70	79	80	70	68	60	63	63
Wells	Minimum	28	28	26	26	34	26	35	32	35	48	54	44	39	25	28	33	36	32	42	50	30	44	50	55	55	58	59	48	48	48	48
Massachusetts.																																
Andover	Maximum	49	49	45	49	50	46	52	67	70	66	63	64	53	61	65	69	67	70	75	72	63	61	69	69	88	81	88	54	75	56	63
Andover	Minimum	35	30	27	29	28	36	37	43	43	47	51	42	36	31	34	38	46	41	46	53	40	30	41	49	46	43	50	45	45	40	40
Barnstable	Maximum	48	46	41	42	47	43	47	64	64	63	64	64	55	51	45	52	57	60	68	73	62	60	65	59	73	81	81	45	60	49	55
Barnstable	Minimum	31	32	28	32	35	39	36	43	43	49	49	37	35	37	37	40	41	46	56	40	37	42	41	40	36	41	38	40	41	41	41
Barnstable	Maximum	42	39	34	47	46	43	53	66	66	68	69	68	56	54	49	54	56	64	72	77	57	65	69	54	73	84	82	46	51	47	47
Barnstable	Minimum	37	37	30	34	34	38	42	39	44	48	54	51	42	39	40	42	45	48	51												



Scale of Shades.





## Daily Precipitation for April, 1915—Continued from page 29.

Stations.	Watershed.	Day of month.																															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Rhode Island.																																	
Block Island ***	Coast			.55				.10	.31				.13	.12											.06				.03	.01	.02	.50	
Bristol	do			* 1.08			.05						.70	.15			.06								.05				.05			.45	
Greene	do			* .46			.07						.06												.11				T.			T.	.57
Hope Valley	do			.40	.30								.34	.35											.09				.05			.45	
Kingston	do			.80			.05						.15	.26					T.						.11				.05		.08	.04	.11
Narrag'sett Pier***	do			.40	.35		.09						.09	.27											.06						.01	.79	
Pawtucket	do			* 1.12			.07				T.		.27					T.							.06						.07	T.	.64
Providence***	do			.46	T.		.05						.16	.15				T.		T.					.05						.03	.03	.55
Wallum Lake	do			.60			.19				.02	.42													.03								
Connecticut.																																	
Bridgeport	Coast			.60	.04		.10	.21				.28	.20				T.		T.						.25						.09	.11	
Canton	Connecticut			1.10			.11				T.		* .88												T.			T.				.28	
Colchester	Coast			* .60			.12					.20	.45												.15							.34	
Cream Hill	Housatonic.			.60	.30		.23				.10	.82	.41												.15							.19	
Danielson	Coast			* 1.00			.25					.25													.05				.10			.35	
Falls Village	Housatonic.			.87			.20				.16	.96	T.												.04						T.	T.	.33
Hartford **	Connecticut			.77	T.		.15				T.	.04	.32	.02									T.	T.		.13						.05	.15
Hawleyville	Housatonic.			.23	.17									.45	.50										.75							.36	
Lake Konomocott.	Coast			.25									.35	.50											.40							.02	.08
New Haven***	do			T.			.80	T.			.10	.02		T.	.49	.05									.26	T.						.06	
New London	do			* .84									.36												.03							.06	.83
N. Grosvenor Dale.	do			.50			.12				.06	.37													.23							.10	.09
Norwalk	do			* .47			.10	.39				* .78				.02									.10							T.	.30
Southington.	do			.30	.05		.10					.20	.45												.10							T.	.25
Storrs	Coast			.19			.18					.46													.08								1.02
Torrington	Housatonic.			.20	.04						.44	.98													.15								
Voluntown	Coast			* .47			.08					.14	.32												.06						.15	.08	.08
Wallingford	do			1.10							.20	.55													.15							.08	.08
Waterbury	Housatonic.			1.02			.22					.23	.37												.22							.04	.20

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight. \* Precipitation indicated in that of following day.

T. Precipitation is less than 0.01 inch rain or melted snow. \*\* Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.

## Comparative Data for New England for April.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.									
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	
1888....	40.1	89	- 5	2.70	.....	11	4.3	11	13	6	.....	nw.	9.4	46	sw.	1902....	45.4	86	- 14	3.67	3.30	9	T.	9	10	11	45	sw.	10.9	53	nw.	
1889....	46.7	92	10	3.17	.....	9	2.0	14	8	10	12	.....	ne.	10.8	52	ne.	1903....	44.8	87	- 1	2.69	3.05	8	1.5	13	8	9	65	nw.	11.9	60	nw.
1890....	44.2	80	6	2.63	.....	9	1.8	14	9	12	.....	nw.	10.7	48	ne.	1904....	41.5	78	0	5.68	3.27	12	7.7	10	9	11	52	nw.	10.4	55	w.	
1891....	45.7	84	2	2.99	.....	8	2.8	10	11	9	.....	nw.	11.0	70	se.	1905....	43.7	79	12	2.20	1.66	8	T.	12	10	8	63	nw.	10.9	63	w.	
1892....	44.8	81	4	1.02	.....	8	T.	11	10	8	.....	nw.	10.9	54	ne.	1906....	43.9	77	- 7	2.85	3.33	9	5.5	13	8	9	60	nw.	9.9	68	se.	
1893....	40.9	78	- 7	3.19	.....	14	7.7	9	8	13	.....	nw.	11.0	63	se.	1907....	40.0	77	- 3	3.20	2.23	9	13.1	11	8	11	48	nw.	11.7	70	nw.	
1894....	44.8	84	1	2.47	.....	12	8.3	10	7	13	.....	sw.	13.3	72	e.	1908....	42.8	90	- 4	2.28	1.50	11	2.7	13	9	8	59	nw.	12.3	73	nw.	
1895....	42.8	84	8	4.54	4.25	13	.....	10	7	13	.....	sw.	10.8	60	e.	1909....	43.0	86	2	4.59	5.26	12	2.5	11	9	10	48	nw.	12.7	90	w.	
1896....	45.8	97	6	1.31	1.28	8	3.7	11	11	8	46	nw.	11.7	54	w.	1910....	48.7	84	12	3.07	3.00	9	T.	12	8	10	53	nw.	10.1	56	s.	
1897....	46.1	88	3	2.97	3.73	10	1.8	12	9	9	53	sw.	11.2	46	sw.	1911....	41.3	88	- 8	2.23	2.51	6	7.0	17	7	6	66	nw.	11.1	70	nw.	
1898....	42.0	78	5	4.17	4.10	13	4.5	9	8	13	48	ne.	13.2	72	ne.	1912....	44.0	81	5	3.51	1.37	14	4.2	10	8	12	55	nw.	11.3	54	w.	
1899....	44.2	92	2	1.68	1.68	6	2.0	17	8	5	71	nw.	9.7	52	nw.	1913....	46.0	92	- 2	3.71	3.55	10	1.1	12	7	11	57	nw.	10.7	54	s.	
1900....	44.5	83	8	1.82	1.68	6	T.	14	7	9	54	nw.	11.0	51	nw.	1914....	40.8	88	- 3	4.66	3.18	12	4.4	11	7	12	57	nw.	12.5	88	w.	
1901....	44.7	87	15	6.80	5.00	14	T.	8	3	19	36	ne.	12.7	63	ne.	1915....	48.0	93	15	2.24	2.23	8	5.2	11	9	10	51	nw.	10.9	79	ne.	



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U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

MAY, 1915

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BY  
JOHN W. SMITH  
DISTRICT FORECASTER AND SECTION DIRECTOR

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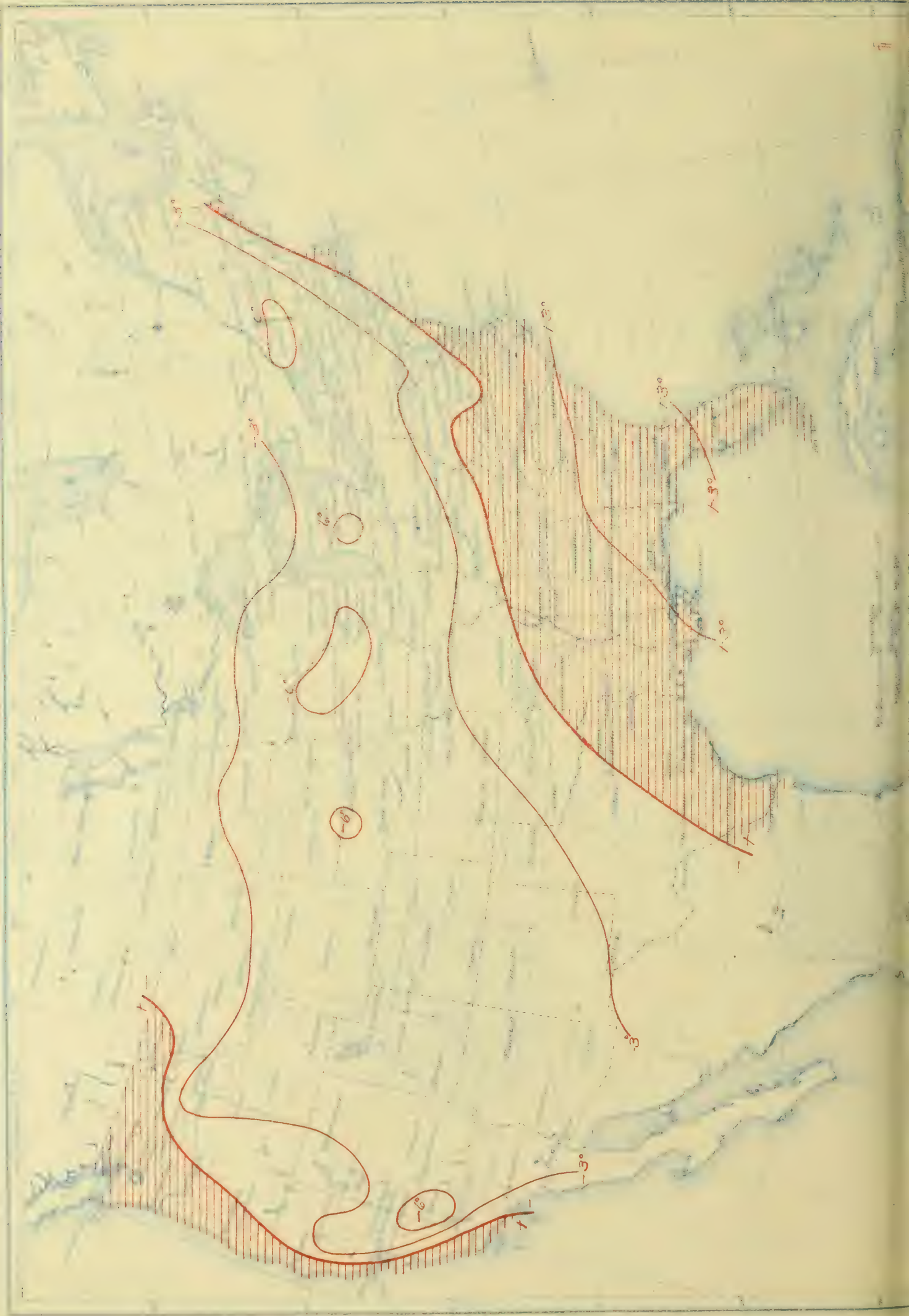


BOSTON, MASS.  
WEATHER BUREAU OFFICE  
JUNE 21, 1915

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Departure of the Mean Temperature from the Normal, May, 1815.





U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

NEW ENGLAND SECTION.

J. W. SMITH, District Forecaster and Section Director.

Vol. XXVII. BOSTON, MASS., MAY, 1915. No. 5.

GENERAL SUMMARY.

The temperature during the month was lower than usual, with all nights and comparatively few days with maxima above 80°. The sectional average, with one exception, was the lowest of record since 1888. Killing frosts were general over the greater part of the interior and northern portions of the section on the nights of the 27th and 29th, doing considerable damage to garden truck and cranberry bogs. In some localities the ground froze and ice made to the thickness of one-fourth of an inch. The precipitation was well distributed through the month, but fell in all amounts and was below the normal in all of the states, the deficiency being least in Maine and Connecticut. The spring months of the present year, March April and May, with a total average rainfall of only 4.67 inches, have been the dryest of record for the sectional averages, extending back to 1888. The total average and deficiency for the three months for the several states have been as follows: Maine—total, 6.15 inches; deficiency, 1.11. New Hampshire—total, 3.93; deficiency, —5.74. Vermont—total, 3.76; deficiency, —4.85. Massachusetts—total, 4.16; deficiency, —6.57. Rhode Island—total, 4.43; deficiency, —7.77. Connecticut—total, 5.17; deficiency, —6.68. The previous dryest spring was in 1905, when the average precipitation for the section for the three months was 6.50 inches.

PRESSURE.

The mean sea-level atmospheric pressure for the section, 15 stations reporting, was 29.89 inches, and 0.08 inch below the normal for the month. The highest monthly mean was 29.92 inches, at Burlington, Vt.; the lowest, 29.82 inches, at Eastport, Me. The highest recorded was 30.35 inches, at Burlington, Vt., on the 11th; the lowest, 29.41 inches, at New Haven, Conn., on the 5th. The monthly range for the section was 0.94 inch.

TEMPERATURE.

The monthly mean for the section, as shown by the records of 15 stations, was 52.8°, which was 4.0° below the mean for May, 1914, and the lowest for the month since 1907. The mean departure from the normal for 66 stations having ten or more years' record was —2.4°. The average May temperature during the past 27 years has been lower in only one year, which was 1907, when the average for the month was 49.9°. The greatest May average during this period was 60.6°, in 1911; the lowest, 49.9°, in 1907. The average temperature of the several states of the section, was as follows: Maine, 51.2°; New Hampshire, 51.5°; Vermont, 50.9°; Massachusetts, 54.5°; Rhode Island, 53.5°; Connecticut, 54.5°. The departures from normal were as follows: Maine, —1.3°; New Hampshire, —1.5°; Vermont, —4.0°; Massachusetts, —1.9°; Rhode Island, —1.9°; Connecticut, —2.2°. The highest monthly mean was 58.0°, at New London, Conn.; the lowest, 46.6°, at Eastport, Me. The highest recorded was 86°, at Durham, N. H., on the 22d; the lowest, 22°, at Greenville, Me., on the 27th. The range for the section was 64°. The greatest local monthly mean was 57°, at Greenville, Me.; the least, 25°, at Block Island, R. I. The greatest daily range was 49°, at Grafton, N. H., on the 12th, and at Cavendish, Vt., on the 31st.

HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 15 stations reporting, was 59 per cent, which was 6 per cent below the normal. The

highest monthly average was 86 per cent, at Block Island, R. I.; the lowest, 63 per cent, at Boston, Mass., and Portland, Me.

PRECIPITATION.

The average for the section, as shown by the records of 83 stations, was 2.22 inches, which was 0.07 inch above the average for May, 1914. During the past 27 years the average precipitation for the month has been greater in 21 and less in 6 years. The greatest May average during this time was 5.83 inches in 1901; the least, 0.68 inch, in 1903. The average for the several states was as follows: Maine, 2.74 inches; New Hampshire, 1.34; Vermont, 1.69; Massachusetts, 2.00; Rhode Island, 2.48; Connecticut, 1.97. The precipitation, for the section, was 1.18 inches below the normal. The departures from the normal for the several states were as follows: Maine, —0.57 inches; New Hampshire, —1.92; Vermont, —1.53; Massachusetts, —1.48; Rhode Island, —1.21; Connecticut, —0.70. The greatest monthly amount was 5.14 inches, at Van Buren, Me.; the least, 0.61 inch, at Grafton, N. H. The greatest amount in 24 hours was 2.20 inches, at Orono, Me., on the 1st. The average number of days with .01 inch or more of precipitation was 10, 1 less than the normal number for the month.

WIND.

The prevailing direction of the wind was from the northwest; the normal direction for the month is from the south. The average monthly wind movement for the section, 15 stations reporting, was 7,547 miles. The average hourly velocity was 10.1 miles, which was 0.2 miles below the average for May, last year, and 0.4 below the normal for the month, as determined from the records of the past 28 years. The greatest monthly wind movement was 11,988 miles, at Blue Hill Observatory, Hyde Park, Mass.; the least, 4,087 miles, at Amherst, Mass. The highest velocity recorded was 50 miles per hour from the northwest, at Block Island, R. I., on the 26th. This is about the usual maximum velocity in May.

SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 12; partly cloudy, 9; cloudy, 10. The normal for month is 11 clear, 10 partly cloudy, and 10 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having selfrecording instruments, was 56, which was 2 per cent above the normal for the month, and 4 per cent below the average for May, 1914. Since the beginning of the automatic records in 1893, the amount of sunshine in May has been greater in 9 years, less in 11 years, and the same in 1 year, as compared with that of the present year. The greatest amount in any May in this period was 78 per cent in 1903; the least, 39 per cent, in 1897. The greatest percentage of possible sunshine was 66, at Boston, Mass.; the least, 43, at Eastport, Me.

DATES OF MISCELLANEOUS PHENOMENA.

*Auroras*.—Hanover, N. H., 11, 19, 26, 29; Enosburg Falls, Vt., 5.

*Halos, Lunar*.—Woodstock, Vt., 23; Blue Hill and Boston, Mass., 25; New Haven, Conn., 27.

*Halos, Solar*.—Concord, N. H., 7; Burlington, Vt., 7, 14, 16, 20; Northfield, Vt., 7, 12, 22; Woodstock, Vt., 7, 11, 16, 20; Blue Hill, Mass., 8, 12, 16, 30; Boston, Mass., 7, 8, 12, 13; Hartford, Conn., 8; New Haven, Conn., 8, 12, 20, 29.

*Thunderstorms* (dates and number of observers reporting on each): Maine—9th, 3; 10th, 1; 18th, 1; 22d, 1; 24th, 1; 26th, 1. New Hampshire—9th, 3; 13th, 6. Vermont—9th, 1; 11th, 1; 13th, 2; 25th, 1. Massachusetts—9th, 1; 13th, 15; 21st, 7; 22d, 6. Rhode Island—13th, 1; 21st, 2; 22d, 4. Connecticut—13th, 3; 21st, 8; 22d, 5.







## Daily Precipitation for May, 1915.

		Day of month.																															Total
Stations.	Watershed.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Maine.																																	
shland	St. John																																
ar Harbor	Coast																																
mbridge	Kennebec	2.04	.10	.25	.10	T.					T.			.20					T.	.06	T.												3.14
rnish	Saco	.02		.06	T.			.28	.12					.24																			1.08
enforth	Penobscot	1.07	.35	.47	.35	T.	.40							.15					T.	.06	T.												3.00
stport***	Coast	.69	.19	.55	.10			.61						.05						.17	.04												3.14
stis	Kennebec	.42	.10	.05	.10	T.	.02			.22	.01		.07	.25					T.	.01	.10	.01											1.69
urfield	do				.06									.10								.35	.05										0.91
ramington	do	1.14	.05	.06	.08			.35	.01		.03			.29					.05				.12										2.06
rdmer	do	1.22	.04	.03	.03			.41												.03			.05										2.06
enville***	do	.96	T.	.16	.16			.10	.24	T.	.04			.16					T.	.08	.06	.14	T.										2.41
ulton	St. John		.04	1.05	.37			.53	.15											.20			.15										2.99
owe Brook	Penobscot	.80	.75	.50	.38			.30	.05											.20			.15										1.19
wiston	Androsoggin	.55	.01	.02	T.			.38						.05					.01	T.	.27	.20		.02									1.41
adison	Kennebec	.61	.06	.24	.06			.47			.08			.16						.05	.04												1.81
lmocket	Penobscot	.63	.18	.44	.02			.56	.01	T.	.02		.04	.22						.08	.04		.11	.09									2.50
orth Bridgton	Saco	.80	.01	T.	.02			.29			T.			.04						.03	.10		T.	.04									3.90
quosoc	Androsoggin			.20	.10						.30																						1.62
mo	Penobscot	2.20	.17	.13	.46			.38			.20			.12																			1.30
itten	do	.60		.20	.40			.30			.20											.10											4.97
rtland	Coast	.41		.01	.01	T.		.03	.88					.18						T.	T.			.01									3.90
esque Isle	St. John																																2.06
unford	Androsoggin	.12	.01	.01	T.			.08	.04	T.	.09			T.						.06	.02			.05									0.78
oodie	Piscataquis																																
in Buren	St. John	.58	1.28	.25				1.15	.23		.21	T.	.19									.56											5.14
inslow	Kennebec				1.55			.42						.11					.28			.03											2.95
New Hampshire.																																	
stead Center	Connecticut	.06	.01	.20	.02			T.	.22					.23					.26	.02			T.										1.55
thlehem	do	.07		.02	.01	T.	T.	T.	.24		.05	.06		.10					.07	.07	.23	.01		.06	T.								1.82
ockline	Merrimack			.25				.50						.20					.12			.18											1.61
nsord	do	.01	.01	.09				T.	.17					.28					.04		T.		.05	.01									0.99
rhann	do	.33	.01					T.	.62					.09	.04				.04	.02				.06									1.47
asklin	do	.12		.11				.04	.10					.13					.14	T.	T.			.01									0.83
nekliff	do	.10		T.			.03		.40	.06	.10			.10					.20	T.	.18		.04										1.89
afton	do	T.		.03				T.	.26					.10					.65		T.		.02										0.61
nowen	Connecticut	.06	.01	.03	T.		T.	.01	.22	T.		T.	.10	.07	T.				.18	T.	T.		T.	.03									0.98
ene	do	.05	T.	.20		T.		.02	.05					.18					.09				T.	.05									1.11
shua	Merrimack	.20		.43				.57						.21					.13				T.	.15									2.06
wton	do			.08				T.	.39					.43					.09				.13	T.									1.42
mouth	do	T.						T.	.37	.04				.36					.37	T.	T.		.05										1.36
Vermont.																																	
omfield	Connecticut	.04	.14					.56			.15	.11							.04	.03	.11	.01		.11									1.82
rlington***	Champlain	.10	T.	T.	T.	T.	.01	.18	.18	T.		.11		.12					.37	.02	.01	.01	.08										1.73
endish	Connecticut	.11	.10	.12				.20						.44					.24	.02	T.		.02										1.30
lsea	do	.04						.12	.50					.40					.40	T.	.04			.02									2.05
inwall	Champlain		.34	T.				.30						.40					.15		T.		.10										1.44
osburg Falls	do	.02		.02	.02		.02	.06	.49	.04	.05	.04		.12				T.	.03	.21	.02	.27	.03	.10									2.89
de Park	do	.11	.10	.02				.32	T.					.08					.18	.17	.24	.01		.08									1.83
rdfield***	Champlain	.36	.01	.01	.02	.02	.01	.32		.02				.35					.09	.03	.04		.04										1.56
ueriset	Connecticut	.07	.19	.25			.08	.15						.40					.10	.28				.17									1.89
Johnbury	do	.02	.18	T.	.01		T.	.54	T.	.01	.05			.22					.14	.05	.05	T.	T.	.14	T.								2.01
non	do		.12					.08						.08					.08				.15										0.79
lls	Champlain	.14	.06	.08		T.	T.	T.	.27					.49					.26	.06	.05		T.	.05									1.98
odstock	Connecticut	T.	.13					.35				.10							T.														0.69
Massachusetts.																																	
herst	Connecticut	.01	T.		T.	.06		.03	.31					.01					.05				.46	.04		.02							1.20
land	Merrimack			.03		.13		*	.36				.02	.26					.26				.67			.02							1.94
ers Bridget	do			.46				.34						.19					.32				.45										1.93
fford	do	.16		.27	T.	T.		T.	.33					.08					.21	.02			T.	.33									1.56
e Hill	Coast	.46	T.	.06	.01	.03		T.	.18					.20					.08				.09	.69		.01							2.01
ton***	do	.22	T.	.21		T.	T.	.08	.02					.22					.23				.10	.39									1.64
ton	Coast	.61		.02		.10		.38						.04	.56				.02	.02			.01	.73	.08								2.87
stnut Hill	do		.19					.16						.13					.25			*	.55	*									1.48
ton	Merrimack			.04	.02	.05		.47						.14					.22				*	.45									1.51
cord	do	.26	T.	.15	.02	T.		.31	T.					.20	.01				.24	T.			*	.41		T.							1.75
l River	Coast	.10		.01	.15																												

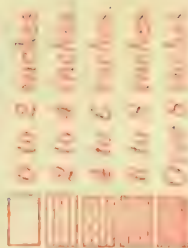


## Daily Temperatures for May, 1915.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Me		
Maine.																																		
Bar Harbor	Maximum	45	59	53	56	62	69	73	75	77	68	68	82	67	69	67	63	50	60	66	70	62	76	75	75	76	61	61	68	64	72	79	6	
	Minimum	36	37	40	37	44	40	50	45	42	44	36	45	32	31	37	41	42	34	34	32	48	45	41	45	47	31	42	34	32	37	2		
Cornish	Maximum	38	41	40	39	49	50	66	51	48	60	60	61	52	53	52	49	49	44	53	60	58	53	69	63	60	54	53	50	53	68	66	3	
	Minimum	35	35	34	33	35	40	41	45	39	43	41	39	41	38	39	39	37	40	42	41	43	42	48	44	43	38	33	40	37	39	38	4	
Eastport	Maximum	35	42	44	42	51	64	71	70	68	54	54	79	71	56	49	55	51	47	55	57	64	72	69	68	70	56	51	51	52	66	72	5	
	Minimum	33	32	34	35	33	32	38	46	39	38	33	38	43	33	34	34	35	40	44	39	29	40	50	43	40	39	22	36	37	29	45	3	
Greenville	Maximum	39	38	44	46	56	69	76	67	72	72	59	80	79	63	59	62	58	57	58	62	69	70	72	71	71	67	54	54	57	72	76	6	
	Minimum	32	33	36	35	35	35	42	49	42	42	34	35	44	34	31	39	34	42	41	41	30	43	54	44	34	44	25	39	33	31	47	3	
Millinocket	Maximum	41	41	43	44	53	72	76	77	72	71	65	76	77	67	65	65	63	53	62	60	70	68	76	77	77	76	61	57	56	71	76	6	
	Minimum	36	35	35	37	38	39	48	49	46	43	37	41	48	42	35	39	47	45	42	33	74	56	49	43	52	25	35	36	32	49	4		
Orono	Maximum	41	49	47	51	53	65	68	66	76	65	65	81	66	53	60	55	47	55	61	65	56	76	70	65	65	57	57	65	57	63	67	4	
	Minimum	38	38	39	43	40	46	47	48	48	45	45	41	47	41	40	41	43	40	41	44	43	47	64	50	50	41	35	41	40	39	47	3	
Presque Isle	Maximum	40	53	48	49	56	62	71	70	71	61	60	82	64	60	58	59	48	58	59	62	64	78	69	72	71	60	54	62	57	63	77	6	
	Minimum	38	38	38	41	42	46	41	52	43	44	43	42	47	34	36	38	42	42	40	42	36	50	51	45	46	41	34	42	40	32	42	4	
Rumford	Maximum	39	42	65	55	54	64	73	68	69	55	53	64	67	55	59	55	59	55	57	56	67	62	65	66	66	62	48	45	54	59	70	5	
	Minimum	32	32	35	39	47	32	32	48	45	36	35	30	40	28	35	32	35	40	40	37	26	42	46	36	29	43	29	35	33	34	45	3	
New Hampshire.																																		
Alstead Center	Maximum	46	52	51	57	57	65	70	71	65	60	65	73	64	58	60	55	49	57	59	65	57	70	69	66	73	66	58	65	59	66	75	6	
	Minimum	36	38	38	37	42	43	45	55	51	39	43	48	51	41	37	34	40	41	38	38	42	48	54	42	48	45	32	40	41	36	44	2	
Bethlehem	Maximum	44	47	49	49	53	60	71	70	66	59	57	75	65	56	53	55	49	56	52	58	61	71	63	66	70	62	49	60	56	64	72	5	
	Minimum	37	33	33	32	38	42	39	52	46	37	35	39	50	28	33	32	37	38	35	35	32	45	48	39	46	42	27	33	32	30	38	3	
Concord	Maximum	47	54	54	58	58	67	76	75	71	67	66	80	68	65	63	62	58	46	61	61	65	61	75	67	70	75	64	60	67	62	69	79	6
	Minimum	38	39	40	33	42	46	38	51	46	44	44	37	41	36	32	34	41	42	39	36	38	49	51	41	44	41	37	45	37	33	28	4	
Franklin	Maximum	47	54	54	58	58	67	76	75	71	67	66	80	68	65	63	62	58	46	61	61	65	61	75	67	70	75	64	60	67	62	69	79	6
	Minimum	38	38	39	31	42	46	35	54	43	42	44	35	49	31	29	35	41	41	35	38	34	48	54	41	43	47	35	42	34	31	36	3	
Hanover	Maximum	46	53	55	56	59	66	72	74	66	64	67	78	70	63	58	46	61	59	48	60	60	65	60	73	68	77	64	59	66	61	70	78	6
	Minimum	39	38	39	29	38	44	35	54	39	39	40	35	50	30	28	32	40	41	32	34	38	49	53	39	40	42	32	36	36	30	34	3	
Nashua	Maximum	48	56	55	61	60	71	78	77	75	70	72	72	73	64	67	60	53	61	64	71	63	79	70	71	77	67	65	73	68	75	78	6	
	Minimum	39	45	41	40	41	44	38	56	51	42	65	43	53	36	34	37	44	40	35	41	49	55	43	46	49	37	45	40	34	38	4		
Plymouth	Maximum	59	56	57	59	60	66	73	74	69	65	64	79	58	60	60	61	50	61	60	63	61	74	68	70	76	65	55	66	66	72	80	0	
	Minimum	39	39	38	35	37	47	34	53	39	43	42	31	50	31	31	35	41	41	31	39	31	48	50	42	39	46	34	41	38	28	32	3	
Vermont.																																		
Burlington	Maximum	48	47	47	52	59	65	67	74	60	63	61	79	62	54	65	53	48	59	55	58	63	75	65	67	73	63	57	65	55	65	71	6	
	Minimum	40	37	38	37	42	46	45	54	44	40	40	48	45	37	38	36	41	44	41	40	37	52	50	44	45	38	35	42	38	33	40	4	
Enosburg Falls	Maximum	51	49	50	55	58	63	72	73	69	63	62	79	70	56	53	56	51	59	55	59	56	76	77	69	74	64	53	64	60	66	73	4	
	Minimum	42	37	38	38	35	45	35	54	45	35	32	37	48	28	27	30	40	43	37	35	30	51	50	39	39	42	34	29	34	33	29	4	
Northfield	Maximum	46	49	50	51	56	62	69	71	61	62	62	76	62	54	54	55	45	57	54	59	58	73	64	66	73	64	56	62	55	62	74	6	
	Minimum	37	37	36	39	32	39	35	46	40	36	35	34	38	29	29	31	38	38	32	34	38	41	41	36	38	34	29	40	31	27	32	4	
St. Johnsbury	Maximum	50	53	52	52	57	64	72	73	71	63	63	81	78	11	57	59	57	57	57	62	64	78	73	72	76	74	54	64	64	70	77	6	
	Minimum	40	35	35	34	39	44	55	54	48	40	37	34	49	31	29	34	39	41	38	37	29	50	51	36	40	45	33	38	34	29	34	4	
Wells	Maximum	50	52	48	54	58	79	68	70	72	63	65	74	63	57	58	58	52	58	58	60	59	70	66	65	70	62	58	65	56	73	75	6	
	Minimum	40	40	35	34	40	42	45	52	48	35	38	52	45	35	33	32	40	36	38	41	46	50	40	42	42	26	36	36	33	38	3		
Massachusetts.																																		
Amherst	Maximum	50	57	60	64	60	69	71	75	68	64	73	73	68	68	64	57	47	59	63	70	58	78	64	65	78	60	62	71	68	68	80	6	
	Minimum	41	41	42	42	44	49	40	57	48	41	46	45	46	39	35	34	44	40	35	30	36	48	48	47	43	44	42	36	41	37	37	4	
Blue Hill	Maximum	43	53	48	58	56	68	74	75	75	65	69	75	73	64	64	55	46	58	63	67	62	75	65	67	67	62	61	69	62	66	71	6	
	Minimum	36	38	39	41	41	46	53	58	54	47	44	43	49	54	43	44	33	38	40	44	47	47	57	48	51	48	36	47	45	45	45	4	
Boston	Maximum	48	53	50	57	59	69	74	74	78	68	71	78	77	59	67	57	49	60	66	69	59	80	69	69	65								



Scale of Shades.





## Daily Precipitation for May, 1915—Continued from page 37.

Stations.	Watershed.	Day of month.																														Total.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		31	
<i>Rhode Island.</i>																																		
Block Island ***	Coast	.01				.30		T.	.09	.01			.55	.45			T.	.11				.29	1.10		.07	.01	.09						3.	
Bristol	do	.05				.23	*	.28					*	.29				*	.10			*	.58	.12	.01	.07	.02							1.
Greene	do					.10	.09		.31					.27	.07		.03	.08				.07	.73	.11			.17							2.
Hope Valley	do																																	2.
Kingston	do					.18			.27				.08	.41			T.	.11				.15	.95		.11	.08								3.
Narrag'sett Pier***	do	.27				.27		T.	.42				T.	.55	.01			*	.20			.14	.84	.04	.06	.02	.07							1.
Pawtucket	do	.01		.01		.15			.28				T.	.25				*	.08			*	1.01		.01	.19								1.
Providence***	do		T.			.08		.15	.15				.09	.36			T.	.03		T.		.42	.37		.01	.16								3.
Wallum Lake	do					.18		.43						.15									.2	.16		.05	.20							
<i>Connecticut.</i>																																		
Bridgeport	Coast	T.			T.	.27			.04	T.			.23	.42			T.	.12				.29	1.35		.20	.12								3.
Canton	Connecticut		T.			.28		.06	.22				.18				.08	.09				1.15	.07		.11	.18								2.
Colchester	Coast		.01			.10		.60	.60				.41				.15					.12	.88	.08	.15	.17								3.
Cream Hill	Housatonic	.02	.03			.19		.09	.54				.09					.12	.02			.13	1.26	.10	.05	.32								2.
Danielson	Coast		.01			.10		.50					.25	.10			.25					1.50	.10			.28								3.
Falls Village	Housatonic	.02	.04		T.	.21		T.	.60				.05				T.	.21	.01			1.10	.08	.12		.40								2.
Hartford **	Connecticut	T.	T.		T.	.15		.38	.13				.18	.02			.01	.18	T.			.95	.14		.12	T.	.23							3.
Hawleyville	Housatonic				.66			.21					.72					.34				.25	1.05	.38		.10								3.
Lake Konomocoff	Coast					.50			.40				.49	.27			.40					.12	.15	.55		.15								3.
New Haven***	do	T.	.01		.02	.37		T.	.05				.27				.01	.14	T.			.87	.39	.01	.20	.10								2.
New London	do			.03		.40		.50					1.02				.11					.45	.59			.20	.07							3.
N. Grosvenor Dale	do		.31			.20		.38					.11	.19			.12					* 1.45		.23		.07	.15							2.
Norwalk	do	T.				.17							*	.70			.09					.10	.90	T.	.20	T.	.15	T.						2.
Southington	do					.20		T.	.30				.30				.05	T.				1.53	.13		.05	.20	.20							2.
Storrs	Coast		.02			.10		.27					.23				.11					.04	1.43	.05		.10	.04	.22						4.
Torrington	Housatonic	.95	.31	.04		.28	.03		.39				.15				.08	.06	.03			*	*	.85		.12	.12							3.
Voluntown	Coast	.63		.03		.45		.33					.42	.02			.08	.07				.06	.85	.16		.35	.12							2.
Wallingford	do				.40			.05					.42				.08	.07					.85	.16		.35	.12							2.
Waterbury	Housatonic	T.	.03			.35		*	.17				.40				T.	.15	T.			.22	1.01	.06	.22	.17								2.

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

T. Precipitation is less than 0.01 inch rain or melted snow.

\* Precipitation indicated in that of following day.

† Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.

## Comparative Data for New England for May.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.								
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888....	53.6	88	18	4.49	17	0	5	13	13	....	ne.	8.8	36	e.	1902....	54.1	92	19	2.63	2.50	10	0	14	9	8	57	nw.	10.1	52	w.	
1889....	59.2	98	25	3.57	10	0	9	13	9	....	sw.	8.6	50	ne.	1903....	57.3	96	12	0.68	1.81	4	0	20	7	4	78	nw.	8.7	51	s.	
1890....	55.3	86	22	5.69	15	0	8	11	12	....	s.	13.3	60	ne.	1904....	58.8	91	20	3.52	2.64	10	0	15	8	8	65	sw.	9.2	46	w.	
1891....	53.9	92	22	2.18	9	0	8	14	9	....	sw.	9.3	55	sw.	1905....	54.6	86	22	1.82	1.33	10	T.	12	10	9	62	nw.	10.1	57	w.	
1892....	53.6	89	17	5.23	15	T.	6	10	15	....	sw.	10.8	58	e.	1906....	55.1	96	21	4.96	3.50	11	0	12	9	10	59	sw.	9.7	60	s.	
1893....	54.9	98	25	5.32	14	0	11	9	11	44	sw.	10.2	58	s.	1907....	49.9	91	17	3.07	2.50	10	T.	9	10	12	46	nw.	10.0	50	nw	
1894....	56.0	91	24	4.13	11	0	10	9	12	52	sw.	10.2	54	w.	1908....	57.2	92	21	4.70	3.16	11	T.	11	9	11	55	sw.	10.6	56	sw	
1895....	57.2	100	21	2.52	2.51	10	0	10	12	9	61	sw.	9.8	48	ne.	1909....	53.7	87	22	3.02	2.40	13	0	11	8	12	52	nw.	10.9	50	s.
1896....	58.5	96	22	2.58	2.14	9	0	10	13	8	56	sw.	10.6	57	w.	1910....	54.7	92	22	2.73	1.80	12	0	10	9	12	49	sw.	9.8	39	s.
1897....	55.6	85	17	1.80	2.77	14	0	8	8	15	39	sw.	11.0	60	s.	1911....	60.6	101	16	1.15	2.00	6	0	16	8	7	61	sw.	9.4	41	w.
1898....	54.6	86	14	4.38	2.87	15	0	8	10	13	48	ne.	9.6	72	ne.	1912....	56.1	88	22	5.09	2.98	13	0	11	8	12	54	sw.	10.5	50	sw
1899....	55.7	94	22	1.79	2.20	9	0	14	7	10	60	sw.	9.7	59	se.	1913....	53.2	92	18	3.32	2.10	9	0	13	7	12	54	nw.	9.3	48	sw
1900....	53.1	96	15	4.04	4.54	10	T.	12	10	9	53	nw.	10.5	66	nw.	1914....	56.8	99	21	2.15	2.64	6	T.	16	8	7	60	nw.	10.3	48	nw
1901....	54.6	91	24	5.83	3.20	12	0	10	8	13	42	ne.	10.3	55	e.	1915....	52.8	86	22	2.22	2.20	10	0	12	9	10	56	nw.	10.1	50	nw



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WEATHER BUREAU

CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

NEW ENGLAND SECTION

JUNE, 1915

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BY

JOHN W. SMITH

DISTRICT FORECASTER AND SECTION DIRECTOR

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
JULY 19, 1915



Departure of the Mean Temperature from the Normal, June, 1915.





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, District Forecaster and Section Director.

PL. XXVII. BOSTON, MASS., JUNE, 1915. No. 6.

## GENERAL SUMMARY.

The weather during June presented much the same features in May, with temperature below the normal and deficient precipitation. The average temperature for the section, while the lowest of record for the month, has been lower in June only a small number of the past 27 years. Cool nights prevailed, and on the 3d minimum temperatures below the freezing point were general in Maine and New Hampshire. The maximum temperatures were lower than usual, only a few stations showing a maximum above 90°. The precipitation was deficient in all parts of the section, except at a few scattered stations. It was, however, fairly well distributed, although somewhat less in Maine, Rhode Island and Connecticut, than in the remaining States. The continued deficiency in rainfall has made the spring the earliest summer of the present year the driest of record for the section, covering the period since 1888. Owing, however, to the relatively cool temperatures and absence of drying winds, the drought has not been as injurious to vegetation as it otherwise would have been if the usual warm days had occurred. Thunderstorms were few until the last of the month, when on the 26th and 27th they were general, and in some localities caused much damage by lightning, heavy rain and hail, particularly in the States of Rhode Island and southeastern Massachusetts. In the city of Bristol, R. I., the hail was very severe, breaking windows in buildings and greenhouses, and destroying gardens and orchards. Many of the stones were reported to have been nearly as large as hen's eggs, and to have accumulated to a depth of several inches.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 15 stations reporting, was 30.02 inches, which was 0.06 inch above the normal for the month. The highest monthly mean was 30.05 inches, at Portland, Me.; the lowest, 30.00 inches, at Rutland, Vt. The highest recorded was 30.32 inches, at Eastport, Me., on the 15th; the lowest, 29.58 inches, at the same station on the 14th. The monthly range for the section was 0.74 inch.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 15 stations, was 62.5°, which was 0.2° below the mean for June, 1914, and the lowest for the month since 1910. The mean departure from the normal for 65 stations having ten or more years' record was -2.2°. The average June temperature during the past 27 years has been lower in 5 years, the same in 1 year, and higher in 21 years. The highest June average during this period was 68.1°, in 1892; the lowest, 59.5°, in 1903. The average temperature of the several states of the section, as follows: Maine, 60.5°; New Hampshire, 61.6°; Vermont, 60.5°; Massachusetts, 63.1°; Rhode Island, 61.8°; Connecticut, 60.5°. The departures from the normal were as follows: Maine, -2.0°; New Hampshire, -2.8°; Vermont, -2.8°; Massachusetts, -1.8°; Rhode Island, -2.9°; Connecticut, -1.4°. The highest monthly mean was 67.0°, at Springfield, Mass.; the lowest, 53.2°, at Eastport, Me. The highest recorded was 94°, at Van Buren, Me., on the 26th, and at Nashua, N. H., on the 27th; the lowest, 28°, at Patten, Me., Grafton, N. H., and Randolph, Vt., on the 3d. The greatest local monthly range was 62°, at Van Buren, Me.; the least, 28°, at Block Island, R. I. The greatest daily range was 51°, at Voluntown, Conn., on the 14th.

## HUMIDITY.

The monthly average for the section, as determined from

observations taken at 8 a. m. and 8 p. m., 15 stations reporting, was 75 per cent, which was 1 per cent below the normal. The highest monthly average was 90 per cent, at Block Island, R. I.; the lowest, 68 per cent, at Burlington, Vt.

## PRECIPITATION.

The average for the section, as shown by the records of 83 stations, was 2.08 inches, which was 0.24 inch below the average for June, 1914. During the past 27 years the average precipitation for June has been greater in 22 and less in 5 years, than that of the present year. The greatest June average during this time was 6.70 inches in 1903; the least, 0.93 inch, in 1912. The average for the several states was as follows: Maine, 1.95 inches; New Hampshire, 2.06; Vermont, 2.42; Massachusetts, 2.26; Rhode Island, 1.53; Connecticut, 1.89. The precipitation for the section, was 1.07 inches below the normal. The departures from the normal for the several states were as follows: Maine, -1.43 inches; New Hampshire, -1.03; Vermont, -1.02; Massachusetts, -0.67; Rhode Island, -1.40; Connecticut, -1.08. The greatest monthly amount was 5.42 inches, at Chestnut Hill, Brookline, Mass.; the least, 0.75 inch, at Danielson, Conn. The greatest amount in 24 hours was 4.19 inches, at Chestnut Hill, Brookline, Mass., on the 30th. The average number of days with .01 inch or more of precipitation was 9, which is the normal number for the month.

## WIND.

The prevailing direction of the wind was from the south; the normal direction for the month is from the southwest. The average monthly wind movement for the section, 15 stations reporting, was 6,309 miles. The average hourly velocity was 8.8 miles, which was 1.0 mile below the average of June, last year, and 0.3 below the normal for the month, as determined from the records of the past 28 years. The greatest monthly wind movement was 10,369 miles, at Block Island, R. I.; the least, 2,439 miles, at Amherst, Mass. The highest velocity recorded was 49 miles per hour from the northeast, at Blue Hill Observatory, Hyde Park, Mass., on the 2d. This is about the usual June maximum velocity.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 12; partly cloudy, 11; cloudy, 7. The normal for month is 12 clear, 9 partly cloudy, and 9 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 56, which was 4 per cent below the normal for the month, and the same amount below the average for June, 1914. Since the beginning of the automatic records in 1893, the amount of sunshine in June has been less in 7 years, the same in 2 years, and greater in 13 years than that of the present month. The greatest amount in any June in this period was 78 per cent in 1908; the least, 46 per cent, in 1893 and 1903. The greatest percentage of possible sunshine was 64, at Boston, Mass.; the least, 40, at Eastport, Me.

## DATES OF MISCELLANEOUS PHENOMENA.

*Halos, Lunar.*—Boston, Mass., 27.

*Halos, Solar.*—North Bridgton, Me., 23, 25; Grafton, N. H., 11, 15, 16, 20, 30; Northfield, Vt., 3, 4, 9, 16, 18, 22; Woodstock, Vt., 3, 4, 5; Blue Hill, Mass., 3, 4, 5, 11, 30; Boston, Mass., 3, 4; Block Island, 12; Hartford, Conn., 5, 29; Voluntown, Conn., 29.

*Auroras.*—Cornish, Eastport, Madison, Me., Alstead Center, Nashua, N. H., Cavendish, Vt., Boston, Concord, Fall River, New Bedford, Mass., Canton and Norwalk, Conn., 12; North Bridgton, Me., 12, 13; Rumford, Me., 12, 16; Van Buren, Me., 9, 13; Franklin, N. H., Woodstock, Vt., 13; Hanover, N. H., 12, 13; Burlington, Vt., 8, 12, 13, 17, 18; Northfield, Vt., 12, 16, 17; Blue Hill, Mass., 8, 12; Rockport, Mass., 12, 21.



## Climatological Data for June, 1915.

The departures from normal temperature and precipitation are computed only for such stations as have ten or more years of record, but all complete reports are used in determining section or state means. Reference letters, a, b, c, appearing in the table indicate number of days missing; for example, b represents two days. † Also on other dates. \* Received too late to be included in means and summaries. \*\* Temperature data are from observed readings of the dry bulb; means computed from observed readings. † T. Precipitation is less than 0.01 inch rain or melted snow. § Thermometers not supplied by Weather Bureau. ¶ Post-office addresses of these stations are as follows: Cornwall, Middlebury, Vt.; Blue Hill, Hyde Park, Mass.; Cream Hill, W. Cornwall, Conn.; Canton, Collinsville, Co.

† Also on other dates. \* Received too late to be included in means and summaries. \*\* Temperature data are from observed readings of the dry bulb; means computed from observed readings. † Precipitation is less than 0.01 inch rain or melted snow. § Thermometers not supplied by Weather Bureau.



Daily Precipitation for June, 1915.

Stations.	Watershed.	Day of month.																															Total.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Maine.																																			
Ashland	St. John																																		
Bar Harbor	Coast																																		
Cambridge	Kennebec											.09				.45		.38																1.33	
Cornish	Saco						.04	.02	.04			.29			.19		.57				.05				T	.02	.03	.01				10		1.36	
Danforth	Penobscot							.14							.13		.35	.13							.53									3.11	
Eastport ***	Coast							.02	.20	.12	.18	.01	.04		.16	.25	.71				1.15				.27		.33	.08						3.45	
Eustis	Kennebec							T	.14		.14	.17	T		.12	.12	.15	.22	.01		1.06		.03	.36	.06		.10		.12	.15	.03	.01		1.66	
Fairfield	do													.40			.45							.05	.07	.10								6.00	
Farmington	do						.05	.12		.07	.28	.05		T		.25	.84				.07			T	T	.21	.47	.06						2.00	
Gardiner	do						T	.01		.01	.02	.22			.07	.24	.67	.01			.07			T	.04	.38	.06							2.00	
Greenville ***	do							.22		.29	.16	T			.16	.30	.32				.33				.13	.07	T	.06	.16	.04	T			2.00	
Houlton	St. John											.02			.25	.22	.45				.06													1.32	
Howe Brook	Penobscot							.02	.04						.26	.01	.73								.40	.51		.05	.30					2.07	
Lewiston	Androscooggin							.02	.10		.18	.12			.43	.49				.08							.13	T	.32					1.99	
Madison	Kennebec							.02	.10		.03	.16		.02	.43	.49				.17	.05						.34	.02	.03					2.00	
Millinocket	Penobscot							.02	.10	.78	T	.07		.08	.06	.33	.39				T				.12	.05	.04			.18	T		.13		2.12
North Bridgton	Saco							.05	.10	.35					.33	.50																		2.00	
Oquossoc	Androscooggin								.60						.30	.55					.03				T	.09	.01	.02						1.48	
Orono	Penobscot							.04		.87		.10			.30	.16	.30	.03								.06	.07			.60				2.05	
Patten	do														.20	.60									.15	.50								2.47	
Portland ***	Coast						.02	.12	.05			.08	.04		.11	T	.32			.03	.74				.01	.06	.10							2.30	
Presque Isle	St. John														.31		.70				.51	.06					.26	.12	T					1.72	
Rumford	Androscooggin						T	.17			.33				.31		.70																	2.46	
Schoodic	Piscataquis														.10						.04	.04	.03		.13	.14	T							1.08	
Van Buren	St. John						T					.33			.10																			2.09	
Winslow	Kennebec							.01		.22	.15				.41		.59				.04	.60			.02	.05		.34		.06	T	.10	.06		1.08
New Hampshire.																																			
Alstead Center	Connecticut							.05	.07			T	.17		.07	.17	.41			.17	.05				T	.02	.01	T			.48			1.67	
Bethlehem	do								.25		.02	.61	.29		.02	.19	.62			.07	.04				T	.18		.04	.43	.02		.02		2.80	
Brookline	Merrimack						.22	.05	.10			T			.10		.45			.15	.35			T				.32	.54			.01		2.29	
Concord ***	do							.01	.05	.06			.07	.13		.09	.38			T	.36				T			.05						1.37	
Durham	do						.10	.10	.14				.25		.04	.06	.53				.38					.08								2.08	
Franklin	do							.05	.07			.15	.10		.02	T	.49			T	.02						T	.01						1.17	
Glencliff	do							T	.29			.74			.27		1.07			.40					.03	.05								2.95	
Stratton	do							T	.12			.17			.15	.99			T					.30		.01		.12	.65			.15		2.66	
Hamover	Connecticut							.12			T	.40	.01		.21	.99			.33	.36					.01	T		.05	.03			.35		2.50	
Keene	do							.01	.03			T	.03		.03	.13	.33			.18	.36			T		.06		.08	.12			.28		1.64	
Nashua	Merrimack						T	.24	.15						T	.03	.32	T		.01	.31				.06			.02	.05			.60		1.24	
Newton	do						.28	T	.07	T		T			.18	T	.35			T	.40				T				T			.60		1.88	
Plymouth	do								.10			.50	.06		.23	.17	.83	T		T	.03				T			.54	.10			.15		2.71	
Vermont.																																			
Bloomfield	Connecticut								.25			.13	.43	.10		.07	.85	.97			.06	T				.05								3.11	
Burlington ***	Champlain							.12	.07	T	1.13				.06	.64	.20	.85			.06	T				.10								2.18	
Avondish	Connecticut							.03		.02			.40			.02	.67	.98			.20	.30												2.85	
Bethel	do							.02			.95				.22		.42			.20					.02			.05						2.23	
Corwall	Champlain							.05	T	.05	.80				.25	.45	.15			T														1.70	
Enosburg Falls	do							.18			.75	T			.68	.45	.08	T		.07	T	.04	.06		.25									2.56	
Lytle Park	do							.13			.17	.75	.18			.30	.10			.20	T					.08	.06	T	.02					2.10	
Northfield ***	Champlain							.06	T		1.12				T	.35	.95			.26					T	.01		.06	T	.27	.01		.13		3.16
Somerset	Connecticut							.03	.04	.01		.27		*	.68	.36	.23			.29						.06		T	.11	.27			.44		2.79
St. Johnsbury	do							.20			.03	.44	.36			.01	.21	1.14	T		.02				T	.20		T	.11					1.30	
Union	do						.06	.03	T						.19	.27	.08			.11								T	.18					1.04	
Vells	Champlain							.05	.06			.36			.30	.07	.43			.36	.17				.07	T								2.30	
Woodstock	Connecticut							.13			T	.35			.25		1.06			.31	.12			.11		T								2.48	
Massachusetts.																																			
Amherst	Connecticut							T							.73		.66			.12	1.00				.03			.30						3.00	
Ashland	Merrimack						*	*	.12			.01			*	.04	.36			.02	.36				.19			.13						3.66	
Bakers Bridge II	do						.47						T		T		.79			.42				T			.19							1.87	
Bedford	do						.16	.11	T			T	.04		T		.01	.51		.05	.35			T	.07		T	.21						1.51	
Blue Hill	Coast						.27	.16	.01			T	.02		T		.01	.63		.04	.04			T	.01			.27						1.43	
Boston ***	do						.37	.09	T			T			.03	T	.69			.04	.10			T				.07						1.39	
Brookton	Coast						.04	.18	T			.04			.21	.16			T	.24				T	.19			1.45						2.51	
Chestnut Hill	do						.39		T			T			.04	.35	.15			.05	.14			T		.11								4.19	
Clinton	Merrimack						*	*	.42			T			*	.05	.61			.09	.24			T	.01			.23	.15					1.22	
Concord	do						.18	.19	.02			T	.02		.02	.01	.50			.04	.28			T	.02			.36						1.64	
Fall River	Coast						.17	.08				.02			.01		.48			.13				.01				.72						2.27	
Fitcburg	Merrimack						.03	.20	.10			T			T	.08	.11			.15	.36					.06	.17	.05						1.31	
Framingham	do							*	.36			.01			*	.02	.38			.11	.33				.15			.08						2.03	
Faverhill	do						.10	.28	.03			T			.12	T	.54	T			.36													1.62	
Ingham																																			

Continued on page 48

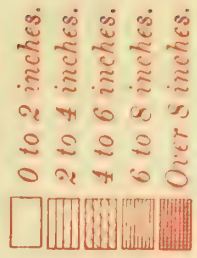


## Daily Temperatures for June, 1915.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Men	
Maine.																																	
Bar Harbor	Maximum	85	65	70	76	78	78	75	81	76	79	80	75	90	64	83	68	87	81	73	76	76	69	68	77	75	81	84	90	79	77	77	
	Minimum	42	39	29	33	42	44	58	55	48	50	48	51	43	53	52	52	54	56	59	60	52	40	44	45	44	46	44	50	54	57	46	
Cornish	Maximum	72	54	58	57	62	64	59	57	57	65	63	67	54	52	62	46	46	45	49	51	46	46	52	61	65	68	63	70	63	51	66	
	Minimum	46	39	37	39	42	43	48	47	48	45	46	46	46	45	46	36	44	46	45	49	51	46	46	45	49	45	49	46	47	51	46	
Eastport	Maximum	77	65	71	81	81	76	77	70	71	66	64	63	70	75	65	78	66	78	74	70	67	70	54	59	66	71	74	78	78	80	71	71
	Minimum	40	37	33	36	46	40	57	55	46	46	42	49	39	46	50	49	50	55	53	57	47	40	45	44	44	46	44	48	52	59	48	
Greenville	Maximum	82	75	72	77	82	81	79	72	74	73	69	70	75	79	70	81	78	80	78	75	72	71	55	64	70	75	77	84	75	81	75	75
	Minimum	38	45	62	43	45	39	56	59	48	43	40	52	38	45	47	51	52	52	48	54	52	41	45	48	44	49	48	48	55	82	48	48
Millinocket	Maximum	83	84	70	72	82	80	81	77	74	75	73	72	73	72	81	77	80	81	83	74	72	73	74	63	71	77	80	82	87	86	77	77
	Minimum	42	41	31	37	42	46	60	57	49	48	44	51	44	50	51	42	50	56	52	58	51	43	47	47	44	48	45	48	57	59	48	48
Orono	Maximum	78	62	53	64	62	62	59	65	73	71	67	75	82	69	57	72	60	77	65	68	73	69	62	64	67	16	73	73	86	76	67	67
	Minimum	46	40	38	40	46	47	50	49	52	51	54	54	52	52	51	50	53	57	54	57	55	51	47	48	51	52	49	56	59	63	50	50
Presque Isle	Maximum	82	62	75	78	80	76	75	72	76	68	70	70	70	82	69	78	67	80	76	74	71	74	61	64	70	73	74	82	82	82	70	70
	Minimum	50	41	33	35	41	41	62	56	50	50	50	53	46	52	53	53	58	56	56	49	43	44	50	50	48	48	54	59	60	84	84	84
Rumford	Maximum	74	65	75	76	81	82	79	75	72	63	71	64	68	73	72	74	75	71	77	76	69	64	53	60	67	64	74	78	83	84	73	73
	Minimum	35	32	33	45	45	48	58	58	45	33	34	50	35	44	42	52	50	52	40	58	41	36	46	45	46	44	45	46	42	53	45	45
Van Buren	Maximum	78	75	63	74	73	76	78	75	71	66	68	70	75	81	76	79	75	83	77	69	71	71	65	61	69	71	72	79	83	73	73	73
	Minimum	50	46	34	39	51	47	58	68	51	50	48	57	48	58	54	53	62	69	62	60	48	48	51	50	60	59	51	51	58	52	52	52
New Hampshire.																																	
Alstead Center	Maximum	77	69	70	78	78	77	81	72	73	61	66	66	74	80	71	77	78	76	66	68	69	61	60	60	72	71	77	79	79	72	72	72
	Minimum	43	44	30	38	47	39	51	58	45	48	42	51	43	55	56	54	55	52	58	55	43	41	41	44	46	48	44	55	52	56	74	74
Bethlehem	Maximum	82	57	64	75	75	72	72	78	79	67	73	75	72	87	63	79	67	58	59	57	53	46	52	52	51	47	46	49	49	57	50	50
	Minimum	44	39	32	34	34	47	59	57	53	52	51	52	46	54	52	52	57	58	59	57	53	46	52	52	51	47	46	49	49	57	50	50
Concord	Maximum	86	73	75	79	83	81	76	89	72	68	77	76	79	91	79	85	76	87	86	73	78	77	73	70	78	76	81	86	89	79	79	79
	Minimum	41	42	30	34	43	41	60	58	51	49	50	54	42	55	53	52	57	58	56	63	50	42	50	49	49	46	45	46	47	52	48	48
Franklin	Maximum	83	66	71	81	82	80	80	80	80	66	70	72	80	85	69	83	72	83	80	71	73	72	67	67	75	74	75	82	85	71	75	75
	Minimum	40	42	31	38	42	41	61	62	46	49	48	53	42	55	54	54	59	56	56	58	45	42	49	48	52	48	47	46	49	54	48	48
Hanover	Maximum	87	71	65	73	76	72	73	73	82	75	78	81	75	94	91	83	76	88	85	79	77	78	75	69	78	76	80	86	90	82	82	82
	Minimum	45	45	35	36	41	48	55	57	49	51	53	61	47	57	54	53	57	59	63	54	49	51	49	51	51	46	47	51	59	51	51	51
Nashua	Maximum	84	66	67	75	75	76	75	78	82	68	70	72	73	87	89	85	85	82	73	74	80	68	67	76	71	74	84	85	70	75	75	75
	Minimum	37	37	29	34	38	35	60	61	46	45	48	53	40	54	54	52	60	55	54	60	50	38	43	48	49	45	45	44	46	53	47	47
Plymouth	Maximum	78	75	70	77	84	80	83	71	70	65	60	67	81	76	71	77	77	78	80	64	69	74	63	64	72	74	71	81	83	74	73	73
	Minimum	45	46	42	48	51	51	60	55	51	49	47	50	47	59	56	60	59	55	62	49	46	48	51	50	60	59	51	51	58	52	52	52
Vermont.																																	
Burlington	Maximum	79	80	75	77	87	81	85	86	79	70	63	69	47	50	47	59	56	60	59	55	62	49	46	48	54	51	45	47	57	63	74	74
	Minimum	43	42	37	43	45	42	50	58	43	40	42	50	42	61	50	58	56	60	58	56	47	58	56	38	41	43	52	43	44	51	56	42
Enosburg Falls	Maximum	78	66	69	79	81	78	77	71	74	61	61	65	77	79	64	75	73	97	77	65	69	72	63	63	70	73	73	71	83	72	72	72
	Minimum	37	39	31	37	42	37	56	45	41	46	44	44	39	55	52	53	52	48	54	46	40	40	44	46	48	43	41	42	49	52	44	44
Northfield	Maximum	84	79	77	85	86	83	85	81	80	75	64	64	77	82	77	82	77	80	78	76	73	77	72	63	72	73	78	83	84	79	77	77
	Minimum	40	42	33	40	44	38	51	60	40	44	52	43	52	45	58	54	55	54	55	54	59	42	40	43	47	52	44	43	42	49	56	47
St. Johnsbury	Maximum	80	70	68	80	78	80	80	76	76	75	72	72	73	87	80	74	76	75	75	66	80	76	70	73	64	66	70	72	78	80	72	74
	Minimum	45	39	37	40	54	46	57	58	46	48	50	56	48	58	57	56	62	55	62	56	43	47	52	48	48	50	48	47	56	58	51	51
Wells	Maximum	78	75	70	77	84	80	83	71	70	65	60	67	81	76	71	77	77	78	80	64	69	74	63	64	72	74	71	81	83	74	73	73
	Minimum	45	46	42	48	51	51	60	55	51	49	47	50	47	59	56	60	59	55	62	49	46	48	51	50	60	59	51	51	58	52	52	52
Massachusetts.																																	
Amherst	Maximum	78	67	51	61	64	55	60	60	60	74	69	75	78	73	86	71	77	73	82	79	55	62	54	55	52	49	54	55	57	53	53	53
	Minimum	44	43	40	37	43	41	62	58	51	52	51	56	43	60	58	67	62	55	62	58	52	50	53	52	50	52	49	54	55	57	53	53
Blue Hill	Maximum	78	67	51	61	64	55	60	60	60	74	69	75	78	73	86	71	77	73	82	79	55	62	54									



Scale of Shades.





## Daily Precipitation for June, 1915—Continued from page 45.

		Day of month.																															
Stations.	Watershed.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
<i>Rhode Island.</i>																																	
Block Island ***	Coast						.10	.01					.08					.67			T.		.09	.05			T.						
Bristol	do						* .28	T.					T.					.67			.08			.16			.80						
Groene	do						* .14	.04					.04					.06	.30		.12			.08			.34	.09					
Hope Valley	do																																
Kingston	do						T.					.10		T.				.70			.02			.34			.20						
Narrag'sett Pier***	do						.06	.07					.06		.03	.04		.86			T.			.42			.49	T.					
Pawtucket	do							.35					.01		.01			.26			.10			.42			1.10	.04			T.		
Providence**	do						.10	.01	.02				.01		.01	T.		.27			.23			.24			.38	.02					
Wallum Lake	do							.15	.08								.06				.40			.65			.70	.23					
<i>Connecticut.</i>																																	
Bridgeport	Coast						T.	.20	.06				T.	.05		.23	.23	.10			.01	.09	.07				.12	.32					
Canton	Connecticut						.51		.11				.15				.41	.88			.53		.02	.16		.13	.02	T.					
Colechester	Coast								.08					.20				.15	.37		.12						.16	.15					
Croton Hill	Housatonic						.01	.03	.20				.03				.71	.84	.12	.69	.66				T.	.16				T.			
Danville	Coast						.10						T.					.40			.05					.05	.10						
Falls Village	Housatonic							.02	.25				.28				.80	.87		.80	.60		.40	.36				.17			.10		
Hartford ***	Connecticut						.01	.15	.03				.12	.01	T.	.41	.46			.09		.02	.04		.03	.01					.13		
Hartfordville	Housatonic							.25					.16				.77	.63							.40	.09		.35					
Lake Konomocott	Coast											.10						.39			.25												
New Haven ***	do						.14	.12	.06				.01	.04	T.		.66	.03	.14		.06	.07	.11		.19	.12	.02				1.17		
New London	do							.38	.03									.09			.11	.13	.05				.13	.11					
N. Grosvenor Dale	do						.07						.04			.08	.29			.24		.03				.54					1.50		
Norwalk	do						.05		.03				.12			.64	.12			.04			.03				.05	T.					
Southington	do						T.	.20	.10				.20				.60	.10	T.					.30			.05	T.					
Storrs	Coast						.22		.10				.06				.16		T.				.06				.10	.23					
Torrington	Housatonic																				.22		.25		.20		.34	.02					
Voluntown	Coast							.04						.08																			
Wallingford	do						.10	.02	.07				.15			.50	.14				.07		.20			.03	.09	.09			2.00		
Waterbury	Housatonic						T.	T.	.11				.16			.51	.23				.09			.40			.02	T.	.20				
														</																			

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight. \* Precipitation indicated in that of following day.

T. Precipitation is less than 0.01 inch rain or melted snow. † Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomocott, New London Water Works, New London, Conn.

## Comparative Data for New England for June.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.		
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.
1888	61.4	101	27	2.81	10	0	9	16	5	....	sw.	8.4	1902	61.3	91	20	4.30	4.00	14	0	12	9	9	55	sw.
1889	65.1	98	28	3.70	11	0	7	12	11	....	sw.	8.6	1903	59.5	89	21	6.70	5.15	13	0	8	6	16	46	sc.
1890	61.0	94	26	3.04	10	0	9	12	9	....	nw.	8.8	1904	63.1	98	30	3.06	6.15	9	0	13	8	9	61	sw.
1891	65.8	99	27	3.16	9	0	9	11	10	....	w.	8.9	1905	62.3	95	25	4.54	3.74	12	0	10	9	11	57	sw.
1892	68.1	98	30	3.02	13	0	8	9	13	....	sw.	9.7	1906	64.2	98	29	4.13	3.03	11	0	12	9	9	58	sw.
1893	65.2	99	34	2.72	10	0	8	10	12	46	sw.	8.3	1907	62.2	101	30	3.60	5.51	10	0	12	9	9	56	sw.
1894	66.1	98	29	1.52	9	0	8	12	10	56	sw.	9.7	1908	65.7	96	24	1.75	2.14	5	0	20	7	3	78	sw.
1895	67.2	99	33	2.81	9	0	11	8	11	58	s.	8.1	1909	64.9	100	20	2.58	2.49	8	0	15	10	5	63	sw.
1896	63.3	96	32	2.73	9	0	10	11	9	57	sw.	9.9	1910	62.5	92	27	3.67	2.30	11	0	12	9	9	53	nw.
1897	69.7	92	30	4.62	10	0	10	9	11	18	nw.	10.4	1911	63.1	92	32	2.94	2.44	10	0	12	8	10	55	nw.
1898	64.5	93	31	2.69	10	0	11	10	9	51	w.	9.5	1912	63.0	97	27	0.93	1.42	6	0	18	8	4	73	nw.
1899	66.1	99	30	2.88	8	0	13	12	5	62	nw.	9.5	1913	63.5	95	27	1.28	1.89	5	0	18	8	4	73	sw.
1900	65.7	105	32	2.74	7	0	15	9	6	68	sw.	9.6	1914	62.7	97	24	2.32	2.24	8	0	14	9	7	60	nw.
1901	65.9	101	30	1.96	7	0	16	8	6	65	sw.	8.7	1915	62.5	94	28	2.08	4.19	9	0	12	11	7	56	s.



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U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

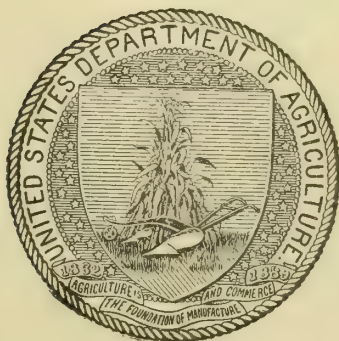
## NEW ENGLAND SECTION

JULY, 1915

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BY  
JOHN W. SMITH  
DISTRICT FORECASTER AND SECTION DIRECTOR

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
AUGUST 18, 1915



Departure of the Mean Temperature from the Normal, July, 1915.





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, District Forecaster and Section Director.

VOL. XXVII.

BOSTON, MASS., JULY, 1915.

No. 7.

## GENERAL SUMMARY.

The marked feature of the month was the unusually heavy rainfall, the average amount being the greatest, with one exception, of any July in the record of the section. The large amount that fell at the beginning of the month saturated the ground and completely relieved the drought that had prevailed through the spring. Following this a storm of considerable energy, for the season, passed over the section on the 8th and 9th, giving additional heavy rainfall, between 3 and 4 inches falling over the eastern portion of Maine and New Hampshire, and between 2 and 3 inches over nearly all of the remainder of the section. This storm was most severe on the Maine coast, with high winds and heavy rain, more than six inches falling at some points on the coast during the night of the 8th. The ground being already saturated, much damage was done to highways, and in connection with the high wind, to growing crops. In portions of western Massachusetts and in the Connecticut valley flood conditions occurred, causing washouts in railroads and highways, carrying away hay on low lands, submerging uncut grass, and covering meadows and intervals with mud. Showers were frequent, with much cloudy weather, during the remainder of the month; the continued rain and absence of sunshine preventing cultivation and causing more or less damage to growing crops, particularly hay and corn. A peculiar feature of the conditions of the month was the small amount of rain that occurred in eastern Rhode Island and a small portion of southeastern Massachusetts, where it was below the normal, with complaint of dry weather.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 15 stations reporting, was 29.92 inches, which was 0.03 inch below the normal for the month. The highest monthly mean was 29.95 inches, at Fall River, Mass.; the lowest, 29.90 inches, at Rutland, Vt. The highest recorded was 30.27 inches, at Portland, Me., on the 14th, and at Boston, Mass., on the 24th; the lowest, 29.14 inches, at Eastport, Me., on the 9th. The monthly range for the section was 1.13 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 67 stations, was 67.8°, which was 1.4° above the mean for July, 1914. The mean departure from the normal for 67 stations during ten or more years' record was -1.5°. During the past 25 years the average July temperature has been higher in 21 and lower in 6 years. The highest average for July in this period was 72.6°, in 1911; the lowest, 66.0°, in 1891. The average temperature of the several states of the section, was as follows: Maine, 65.4°; New Hampshire, 67.0°; Vermont, 67.1°; Massachusetts, 68.9°; Rhode Island, 68.0°; Connecticut, 69.9°. The departures from the normal were as follows: Maine, -2.3°; New Hampshire, -1.9°; Vermont, -1.1°; Massachusetts, -1.2°; Rhode Island, -2.1°; Connecticut, -0.8°. The highest monthly mean was 74.0°, at Westboro, Mass.; the lowest, 58.1°, at Eastport, Me. The highest recorded was 94°, at Springfield, Mass., on the 17th, and at Bridgeport, Conn., on the 31st; the lowest, 37°, at Presque Isle, Me., on the 10th. The greatest local monthly range was 51°, at Presque Isle, Me., and Cavendish, Vt.; the least, 23°, at Block Island, R. I. The greatest daily range was 43°, at Millinocket, Me., on the 11th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 15 stations reporting, was 81 per cent, which was 5 per cent above the normal for the month. The highest monthly average was 91 per cent, at Block Island, R. I.; the lowest, 74 per cent, at Fall River, Mass.

## PRECIPITATION.

The average for the section, as shown by the records of 86 stations, was 7.49 inches, which was 3.90 inches above the average for July, 1914, and with the exception of 7.61 inches in July, 1889, the greatest for this month in the record of the section averages extending back to 1888. The least for any July during this time was 2.19 inches in 1909. The average for the several states was as follows: Maine, 7.49 inches; New Hampshire, 9.94; Vermont, 7.60; Massachusetts, 7.93; Rhode Island, 2.85; Connecticut, 6.31. The precipitation for the section was 3.76 inches above the normal. For the several states the departures from the normal were as follows: Maine, +3.87 inches; New Hampshire, +6.35; Vermont, +3.22; Massachusetts, +4.48; Rhode Island, -0.30; Connecticut, +2.36. The greatest monthly amount was 12.72 inches, at Lawrence, Mass.; the least, 1.32 inches, at Nantucket, Mass. The greatest amount in any 24 hours was 4.86 inches, at Norfolk, Mass., on the 1st. The average number of days with .01 inch or more of precipitation was 15, 5 more than the normal number for the month.

## WIND.

The prevailing direction of the wind was from the southwest, which is the normal direction for July. The average monthly wind movement for the section, 15 stations reporting, was 5,800 miles. The average hourly velocity was 7.8 miles, which was 0.5 mile below the normal for the month, as determined from the records of the past 28 years. The greatest monthly wind movement was 9,674 miles, at Nantucket, Mass.; the least, 2,908 miles, at Amherst, Mass. The highest velocity recorded was 51 miles per hour from the northeast, at Eastport, Me., on the 9th. This is about the average July maximum velocity.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 10; partly cloudy, 12; cloudy, 9. The normal for July is 12 clear, 10 partly cloudy, and 9 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 52, which was 11 per cent below the normal for the month, and 2 per cent above the average for July, 1914. Since the beginning of the automatic records in 1893, the amount of sunshine in July has been greater in 18 years, the same in 1 year, and less in 2 years. The greatest amount in any July during this time was 68 per cent in 1894, and again in 1904; the least, 46 per cent, in 1897. The greatest percentage of possible sunshine was 61, at Boston, Mass.; the least, 41, at Amherst, Mass.

## DATES OF MISCELLANEOUS PHENOMENA.

*Halos, Solar.*—Grafton, N. H., 1, 2, 5, 8, 19, 21, 26, 28; Northfield, Vt., 4, 11; Woodstock, Vt., 15; Blue Hill, Mass., 4, 10, 11, 24, 28; Boston, Mass., 24, 28; Nantucket, Mass., 10, 11; Hartford, Conn., 15; New Haven, Conn., 15.

*Thunderstorms* (dates and number of observers reporting on each): Maine—9th, 1; 14th, 1; 15th, 1; 17th, 1; 18th, 1; 27th, 1. New Hampshire—3d, 1; 14th, 1; 16th, 1; 22d, 1; 26th, 1; 27th, 1; 28th, 1. Vermont—3d, 1; 4th, 2; 7th, 1; 9th, 2; 13th, 2; 14th, 2; 17th, 2; 22d, 2; 25th, 2; 28th, 1; 29th, 1. Massachusetts—2d, 1; 8th, 2; 14th, 1; 17th, 2; 19th, 2; 27th, 1; 29th, 1. Rhode Island—8th, 2; 19th, 2; 31st, 1. Connecticut—1st, 1; 5th, 1; 8th, 2; 13th, 1; 14th, 1; 17th, 1; 19th, 2; 28th, 1; 29th, 1; 31st, 2.



## Climatological Data for July, 1915.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.					Precipitation, in inches.				No. of days—				Observer.			
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.		Partly Cloudy.	Cloudy.	Prevailing direction of wind.
Maine.																				
Bar Harbor	Hancock	20	29																	William Miller.
Cornish	York	778	60	67.6	-1.4	89	13	50	61	36	10.42	+6.46	4.21	0	14	5	13	13	ne.	T. H. West.
Eastport	Washington	53	43	58.1	-1.7	80	18	46	6	31	3.75	+0.48	2.01	0	12	7	10	14	s.	U. S. Weather Bureau.
Fairfield	Somerset	90	30	64.7	-3.2	82	11	45	8	35	7.78	+4.74	3.79	0	7				s.	E. F. Parker.
Farmington	Franklin	450	18	66.6	-0.8	87	13	44	71	42	7.54	+4.02	2.34	0	19	8	12	11	ne.	State Normal School.
Gardiner	Kennebec	163	23	63.2	-7.6	77	27	48	11	26	9.17	+5.93	2.59	0	17	13	4	14	sw.	Samuel D. Soule.
Greenville	Piscataquis	1,140	11	63.6		82	25	45	6	33	8.98	+4.74	1.91	0	17				sw.	U. S. Weather Bureau.
Houlton	Aroostook	362	13	67.1		88	22	44	3	34	4.03	+1.47	1.30	0	5	23	5	3	w.	Bangor & Aroostook R.
Lewiston	Androscoggin	185	32	66.3	-3.2	88	13	52	71	34	9.52	+5.97	2.57	0	17	6	13	12	s.	Union Water Power Co.
Madison	Somerset	257	12	66.6		88	14	46	71	31	7.98	+3.91	3.25	0	19	17	5	9	s.	William Jardine.
Millinocket	Penobscot	286	12	66.0		85	11	42	71	43	5.48	+1.86	2.80	0	14	20	3	8	sw.	Great Northern Paper Co.
North Bridgton	Cumberland	450	22	67.8	-1.7	89	13	49	7	35	11.03	+6.96	4.15	0	18	7	10	14	s.	G. E. Chadbourne.
Orono	Penobscot	129	46	67.4	+0.1	89	19	39	71	38	6.67	+3.42	4.00	0	13	14	9	9	sw.	Department of Physics.
Patten	do.	550	13	64.4	-3.6	81	13	53	7	42	6.30	+2.49	3.00	0	5	13 <sup>a</sup>	6 <sup>a</sup>	8 <sup>a</sup>	sw.	Bangor & Aroostook R.
Portland	Cumberland	99	44	64.7	-3.6	81	13	53	9	24	10.84	+7.47	3.97	0	17	8	10	13	e.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	6	64.4		88	19	37	10	39	3.40	-1.21	0.70	0	8	18	6	7	w.	E. M. Libby.
Rumford	Oxford	505	22	66.4	-1.9	85	13	48	7	33	8.38	+4.57	3.63	0	18	20	4	7	nw.	Charles A. Mixer.
Schoodic	Piscataquis	300																		R. H. Cable.
Van Kuren	Aroostook	510	11								4.36	+0.81	1.41	0	12					J. M. Thomas.
Winslow	Kennebec	90	20	67.9	-0.6	89	25 <sup>a</sup>	48	11	39	9.16	+5.61	4.15	0	11	12	7	12	w.	Hollingsworth & Whitne
New Hampshire.																				
Aldstead Center	Cheshire	1,120	11	67.0	-4.7	85	13 <sup>a</sup>	48	7	30	11.07	+6.79	4.00	0	16	17	9	5	sw.	Frank Dewing.
Bethlehem	Grafton	1,470	23	65.2	-1.9	85	31	47	7	32	7.16	+3.42	2.26	0	19	16	9	6	sw.	Benjamin Tucker.
Concord	Merrimac	350	55	68.2	-0.9	89	13	49	7	33	10.29	+6.63	3.05	0	16	6	14	11	se.	U. S. Weather Bureau.
Durham	Stafford	88	20	66.6	-3.3	90	13	47	25	34	11.22	+8.20	3.97	0	17	12	8	10	se.	Agr. Exp. Station.
Franklin	Merrimac	440	16	68.4	-1.5	89	13	48	7	34	11.70	+8.41	3.24	0	19	7	19	5	nw.	Dr. C. P. Webster.
Glencliff	Grafton	1,650	2	63.7		83	31	43	7	27	8.70	+4.62	2.39	0	19	11	11	9	nw.	State Sanatorium.
Grafton	do.	863	29	65.2	-2.6	88	31	42	10	35	9.35	+5.41	2.60	0	17	14	8	9	se.	P. R. Kimball.
Hanover	do.	603	81	68.1	-1.1	90	31	46	7	35	9.69	+6.21	2.16	0	22	3	9	19	s.	Dartmouth College.
Keene	Cheshire	506	30	68.0	-0.3	88	31	43	71	39	11.09	+7.85	3.60	0	15	9	14	8	se.	Samuel Wadsworth.
Nashua	Hillsboro	125	30	69.8	-0.9	91	13 <sup>a</sup>	47	7	40	8.89	+5.44	1.81	0	16	2	19	10		C. B. Stevens.
Newton	Rockingham	126	27	65.6	-3.6	88	13 <sup>a</sup>	43	7	35	11.47	+8.13	4.33	0	14	6	22	3	sw.	W. C. Gale.
Plymouth	Grafton	500	27	67.6	0.0	87	4 <sup>a</sup>	44	7	37	8.71	+5.07	2.27	0	18	16	1	14	w.	Hattie G. Trow.
Vermont.																				
Bloomfield	Essex	404	8	63.8		87	31	40	8	40	11.93	+7.61	1.98	0	19	17	9	5	s.	Lyman Falls Power Co.
Burlington	Chittenden	404	8	67.6	-0.6	87	31	50	21	27	5.46	+1.42	2.21	0	15	6	15	10	s.	U. S. Weather Bureau.
Cavendish	Windsor	910	12	68.0		92	19	41	7	39	10.55	+1.89	2.88	0	18	6	15	10		Colonial Power Co.
Chelsea	Orange	840	20	66.2	-1.0	89	31	41	10	39	5.73	+2.35	1.37	0	18	10	10	11	w.	W. F. Dewey.
Cornwall	Addison	517	22	69.2	-1.7	90	31	49	7	30	3.96	+0.27	1.85	0	13	10	10	5	s.	C. H. Lane.
Enosburg Falls	Franklin	601	24	67.4	-0.2	87	11 <sup>a</sup>	41	10	39	5.21	+0.48	1.31	0	15	15	12	4	n.	J. W. Pomeroy.
Hyde Park	Lamoille	576	3	67.0		88	31	41	10	39	7.36		2.70	0	14	10	12	9	nw.	A. V. Wiswell.
Northfield	Washington	876	29	64.6	-2.0	86	31	45	7	33	5.22	+1.67	1.76	0	18	2	15	14	s.	U. S. Weather Bureau.
Somerset	Windham	2,096	4	66.4		86	31	51	2	17	12.19		2.82	0	21	2	23	6	nw.	Power Construction Co.
St. Johnsbury	Caledonia	711	22	68.4	+0.3	91	31	45	10	38	6.38	+2.29	1.13	0	21	16	8	7	n.	Fairbanks Museum.
Vernon	Windham	310	24	69.2	-2.1	90	31	46	7	29	6.97	+2.47	2.19	0	14	6	13	12	w.	Conn. River Power Co.
Wells	Rutland	750	24	67.6	-1.4	85 <sup>a</sup>	16 <sup>a</sup>	48 <sup>a</sup>	3	30 <sup>a</sup>	6.69	-2.79	2.27	0	14	4	23	4	s.	E. R. Pember.
Woodstock	Windsor	700	23	66.8	-1.5	89	16 <sup>a</sup>	44	7	42	11.11	+7.21	2.31	0	18	6	17	8		John S. Eaton.
Massachusetts.																				
Ambherst	Hampshire	222	26	70.2	-0.3	91	31	48	7	31	9.13	+4.93	3.10	0	20	3	16	12	sw.	Agr. Exp. Station.
Blue Hill	Norfolk	640	31	68.3	-0.9	86	13 <sup>a</sup>	54	71	26	9.52	+5.50	4.46	0	17	6	8	17	s.	Blue Hill Observatory.
Boston	Suffolk	124	45	70.1	-1.2	90	12	58	21	27	8.85	+5.38	4.46	0	15	8	14	9	e.	U. S. Weather Bureau.
Chestnut Hill	do.	124	35	70.2	-1.4	89	31	50	7	31	6.75	+3.26	2.02	0	16	18	0	13		Met. Water Board.
Clinton	Worcester	370	19	68.4		83	13 <sup>a</sup>	52	6	20	8.38	+5.32	2.41	0	17					Do.
Concord	Middlesex	139	25	68.2	-1.6	86	13	47	7	34	11.64	+8.30	3.80	0	16	6	12	13	s.	Fred A. Tower.
Fall River	Bristol	200	49	70.4	-0.3	88	17	55	23 <sup>a</sup>	22	3.17	+0.13	0.96	0	12	5	22	4	sw.	C. V. S. Remington.
Fitchburg	Worcester	550	32	68.4	-2.1	89	15	50	7	30	10.30	+6.55	2.85	0	19	10	7	14	w.	Dr. A. P. Mason.
Framingham	Middlesex	160	35	69.8	-1.5	88	15 <sup>a</sup>	48	7	34	7.92	+4.50	2.10	0	13					Met. Water Board.
Hyannis	Barnstable	31	24											0	13					C. F. Sleeper.
Lawrence	Essex	51	31	68.6	-4.0	88	13 <sup>a</sup>	50	7	30	12.72	+8.68	4.71	0	16	5	22	4	se.	Essex Company.
Lowell	Middlesex	100	30	70.0	-1.5	85	15 <sup>a</sup>	51	7	31	11.69	+8.40		0	16					Props. Locks & Canals.
Middleboro	Plymouth	53	29	67.8	-1.4	88	17	43	7	34	3.56	+0.62	1.09	0	15	5	12	14	sw.	Ralph Sampson.
Nantucket	Nantucket	47	29	66.8	-0.7	83	30	55	26	18	1.32	-1.26	0.50	0	9	5	16	10	sw.	U. S. Weather Bureau.
New Bedford	Bristol	88	103											0	15	13	13	5	w.	City Engineer.
Norfolk	Norfolk	244	12	67.6		91	12	46	24	36	9.77	+6.09	4.86	0	15	13	13	5	w.	Ruby H. Martyn.
Plymouth	Plymouth	50	30	66.4		87	18	52	7	24	4.06	+0.96	1.02	0	10	19	3	9	e.	L. B. Knapp.
Provincetown	Barnstable	40	28	67.7	-2.0	81	19	55	7	24	4.95	+2.52	2.95	0	10	17	10	4	sw.	Gideon Bowley.
Rockport	Essex	25	13	66.2		86	13	54	41	26	8.13		3.14	0	15	13	11	7	e.	C. F. P. Bearse.
Rutland	Worcester	1,160	13	67.6		87	15	52	91	24	6.89		1.98	0	19	14	10	7	sw.	State Sanatorium.
Springfield	Hampden	199	5	71.2	-2.0	94	31	53	7	31	6.04	+1.36	1.80	0	17	9	15	7	se.	U. S. Army.
Turners Falls	Franklin	200	29	69.4	-0.5	89														



## Day of month.

Continued on page 56



## Daily Temperatures for July, 1915.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Me
Maine.																																
Bar Harbor	Maximum	66	66	68	83	76	77	79	65	77	84	88	80	89	74	85	85	88	82	72	79	77	75	80	79	84	77	80	84	81	77	82
	Minimum	59	58	55	55	54	50	50	56	55	51	52	62	57	58	59	58	60	61	54	56	59	55	54	51	50	58	62	55	60	62	61
Cornish	Maximum	60	66	57	61	58	73	71	58	59	76	66	65	79	71	67	55	60	80	71	74	60	65	68	65	66	66	68	76	58	63	60
	Minimum	51	53	48	47	47	46	50	48	50	54	50	48	48	54	49	49	50	51	53	51	54	51	53	50	49	51	49	51	51	52	52
Eastport	Maximum	70	71	62	81	69	65	73	62	61	73	81	77	80	70	79	79	76	71	68	73	74	74	70	77	82	71	79	80	68	77	79
	Minimum	59	56	55	55	54	45	46	52	52	52	54	53	53	52	57	56	57	55	51	54	54	55	48	54	47	45	56	59	52	57	62
Greenville	Maximum	83	77	73	80	75	75	76	70	58	76	85	81	82	80	83	78	79	76	76	78	76	81	78	79	83	77	84	84	78	74	78
	Minimum	62	54	63	57	58	52	42	53	52	51	42	56	52	48	54	55	54	60	50	58	56	46	56	47	53	55	62	53	59	59	61
Millinocket	Maximum	83	76	74	76	84	70	75	74	62	78	82	84	84	87	80	83	78	76	89	81	84	83	82	86	79	79	82	85	83	73	76
	Minimum	59	58	57	54	55	56	49	52	51	53	52	58	55	56	56	58	57	60	51	59	55	49	56	49	51	57	62	56	58	58	60
Orono	Maximum	63	59	60	84	74	75	72	62	75	80	79	74	81	70	70	62	79	80	70	76	69	69	75	70	71	65	72	79	73	64	67
	Minimum	56	55	54	54	56	58	56	55	53	56	58	62	59	60	57	57	59	62	60	60	59	57	56	55	54	57	60	60	62	59	56
Portland	Maximum	83	78	68	73	77	76	75	76	63	70	84	76	78	80	85	80	74	78	88	80	75	78	79	82	84	75	84	83	72	79	86
	Minimum	50	47	47	45	50	48	52	51	42	37	45	67	48	85	56	55	58	52	58	47	45	45	48	54	55	50	48	45	50	55	61
Presque Isle	Maximum	66	67	68	81	70	69	75	69	74	76	82	80	85	72	82	81	80	75	70	76	72	76	76	79	81	72	80	83	73	79	80
	Minimum	61	60	58	60	55	59	48	56	53	50	49	67	58	60	52	60	64	58	53	60	58	58	57	52	55	62	60	54	82	62	66
Rumford	Maximum	87	79	77	75	78	68	75	61	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	Minimum	54	55	59	58	55	55	42	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
Van Buren	Maximum	63	62	76	81	73	67	73	63	68	79	79	75	85	80	76	73	75	78	75	70	70	74	73	79	81	72	78	76	70	83	75
	Minimum	60	58	56	60	62	56	48	58	53	49	58	57	58	60	57	61	68	59	61	60	56	56	53	54	58	60	61	57	63	61	69
New Hampshire.																																
Alstead Center	Maximum	66	67	75	79	75	68	75	68	70	75	82	79	84	78	82	83	78	73	65	72	70	71	76	80	82	73	73	76	78	81	85
	Minimum	54	57	55	59	59	55	47	54	52	50	59	59	56	57	55	55	66	53	52	55	52	54	49	52	56	53	59	50	60	57	62
Bethlehem	Maximum	65	61	73	84	75	72	78	64	77	82	85	76	89	75	88	83	87	81	76	78	72	74	77	76	83	78	81	80	84	78	82
	Minimum	60	56	56	60	59	56	49	56	55	55	56	60	56	60	59	61	67	65	58	63	61	59	54	53	52	63	58	63	64	64	66
Concord	Maximum	64	63	79	81	73	73	80	69	76	83	86	80	89	79	88	85	86	80	76	79	74	74	79	81	85	74	81	79	84	83	86
	Minimum	60	58	56	59	58	52	48	58	55	53	53	59	55	60	59	59	67	60	56	61	59	57	53	51	54	61	62	54	64	67	65
Franklin	Maximum	64	63	79	81	73	73	80	69	76	83	86	80	89	79	88	85	86	80	76	79	74	74	79	81	85	74	81	79	84	83	86
	Minimum	60	58	56	59	58	52	48	58	55	53	53	59	55	60	59	59	67	60	56	61	59	57	53	51	54	61	62	54	64	67	65
Hanover	Maximum	69	64	78	86	75	75	78	71	85	84	87	85	91	84	91	85	89	88	71	80	75	77	78	76	85	83	83	86	81	78	84
	Minimum	62	58	57	59	64	58	47	60	57	54	56	60	51	60	59	61	65	61	61	65	58	59	52	53	52	59	63	59	65	64	64
Nashua	Maximum	64	63	77	87	74	75	76	63	74	82	85	85	84	75	87	84	85	80	70	79	74	73	77	80	82	69	83	80	85	82	84
	Minimum	59	59	57	61	58	50	44	58	55	45	50	61	54	63	56	55	58	59	53	64	58	57	52	52	54	61	63	50	63	54	69
Vermont.																																
Burlington	Maximum	72	68	80	80	75	70	77	63	81	76	82	80	81	82	81	85	81	37	64	72	74	73	77	81	75	68	80	75	78	83	87
	Minimum	60	61	60	63	63	57	54	57	56	58	56	61	63	61	60	58	65	59	56	56	55	55	54	58	63	60	57	53	60	65	65
Enosburg Falls	Maximum	77	68	85	81	76	70	79	66	74	80	87	83	86	85	82	85	82	75	69	77	77	78	82	85	77	69	81	70	80	86	87
	Minimum	60	60	65	64	51	52	51	58	54	41	48	65	55	57	57	59	64	52	59	51	53	51	55	59	56	53	52	56	58	58	60
Northfield	Maximum	66	62	77	80	69	69	74	59	72	78	83	80	82	81	82	83	81	75	67	70	71	23	72	77	80	82	69	78	76	78	84
	Minimum	57	58	67	58	55	49	45	56	55	46	50	59	53	56	54	52	52	52	52	51	46	52	52	52	56	56	54	47	59	55	60
St. Johnsbury	Maximum	71	68	81	81	88	70	77	75	73	80	86	88	89	86	84	85	85	79	80	74	75	78	80	83	83	73	81	80	82	88	91
	Minimum	58	60	57	57	55	58	46	57	55	45	48	61	55	58	56	55	70	55	53	68	46	56	53	54	58	60	59	52	62	58	63
Wells	Maximum	66	74	78	82	74	75	76	97	74	82	78	83	83	82	85	84	78	78	74	75	73	75	75	86	78	70	74	76	80	82	85
	Minimum	58	56	48	60	62	55	56	55	50	56	57	57	57	58	57	60	56	58	57	55	54	55	56	60	58	59	56	63	62	65	65
Massachusetts.																																
Amherst	Maximum	69	66	83	81	78	71	77	68	78	81	83	76	85	85	88	85	85	81	85	78	73	75	81	81	83	81	83	84	84	87	91
	Minimum	62	58	57	64	61	53	48	61	56	53	58	58	57	61	62	62	60	63	65	61	61	60	54	54	60	64	58	66	61	71	75
Blue Hill	Maximum	68	69	79	82	73	75	72	68	71	78	83	70	86	81	85	86	86	81	82	73	66	72	70	71	81	82	74	80	81	78	71
	Minimum	60	56	57	60	62	58	54	60	56	55	62	61	60	62	61	67	68	65	66	64	59	58	54	58	58	59	62	64	64>6		



Scale of Shades.

- 0 to 2 inches.
- 2 to 4 inches.
- 4 to 6 inches.
- 6 to 8 inches.
- Over 8 inches.





## Daily Precipitation for July, 1915—Continued from page 53.

Stations.	Watershed.	Day of month.																															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
<i>Rhode Island.</i>																																	
Block Island ***	Coast	.06				.09			.87				.43		T.		T.			.22	.16	.14								.06	.06		T.
Bristol	do	*	*	.60		.06			.62				.08				T.			.01	.21									.41			
Greene	do	3.04	.05	.04		.21			.39	.56				.43			.01			.26	.13							.02		.45			
Hope Valley	do	1.00				.25			1.08	.01				.27			T.				.83						.31						
Kingston	do	.32	.16			.08			.80				.17							.10	.06								.08	.36			
Narragansett Pier***	do	.17	.12	.03		.05			.70				.12		.04				.06	.17	.12									.40	.04		
Pawtucket	do	5.10		.13	.02	.28		T.	1.20	T.			.09		.22	.32	T.	.11		.08	.08								.03	.46		.03	
Providence***	do	3.77	.17	.05		.20			1.04	T.		T.	.08		.01	.30			.12	.12		.04							.02	.16	.27		
Wallum Lake	do	2.25	.06	.07		.15			1.73				2.23		.44					.10									.34	.70		.32	
<i>Connecticut.</i>																																	
Bridgeport	Coast	2.61	.05		.04	.38			.75				.13		.02	.06	T.			.31		.22	.01						.15	.08	.09		
Canton	Connecticut	2.73	.71			.40			.95			.08	.02				T.		.82		.10								.35	.91		.03	
Colchester	Coast	2.80		.10		.60			.90					.15						.06	.35	.06							.10	.26	.56		
Cream Hill	Housatonic	1.25	.05	.19		.42			13.23				.32				.03		.26	1.26	.24	.03						.20	.22	.65	.16		
Danielson	Coast	4.30				.85			1.80				T.		1.60			.20		.25		T.								.90			
Falls Village	Housatonic	.92	.45	.16		.23			.05	2.27		.15	.11				.02	T.	1.49		.45								.26	.70	.27	.44	
Hartford***	Connecticut	2.00	.22	.02		.60		T.	1.14			.07	.01		.51			.01		.42		.17							.02	.03	.83	.11	1.01
Hawleyville	Housatonic	2.00		.24		.60			2.03						.30	.06						.08	.28	.38						.90			
Lake Konomocott	Coast	1.60				.25									.98						.35	.40		.08					.02	.06	.24	T.	
New Haven***	do	.97	.10	T.		.60		T.	.60			.08	.07	T.	T.		T.		T.	.27	.02	.72	.08					.02	.06	.24	T.		
New London	do	1.20	*	1.11	.37	.35			.40			.41	T.	.02						.16		.22	.61							.27		.19	
N. Grosvenor Dale	do	2.75	.13		.15	.62			1.51			.14		.56						.12		.23	.06						.19		.78		.34
Norwalk	do	1.61	*	.10		.51			.67			.04								.55	.06							.15	.31				
Southington	do	3.00	T.	T.		.50			.75	.10		.10			T.					.10	.35	.20							.05	.80		.90	
Storrs	Coast	3.14		.10	.05	.45			.79			.11		.70				.05		.17		.25						.04	T.	.11		.23	
Torrington	Housatonic																																
Voluntown	Coast	1.64		.04		.18		*	.65			.15		.08						*	.10	.19								.29			
Wallingford	do	.05	.09		.05	.68		.20				.12	.03	.10						.14	.20	.30						.07	.24		1.08		
Waterbury	Housatonic	2.63	.04	.02		.39			.93	.33		.16	.30					.01		.36		.26							.09	.76		.02	

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

T. Precipitation is less than 0.01 inch rain or melted snow.

† Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomocott, New London Water Works, New London, Conn.

## Comparative Data for New England for July.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.								
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888....	66.8	94	32	2.38	.....	10	0	12	10	9	.....	sw.	10.3	48	sw.	1902....	66.3	96	30	4.67	3.34	12	0	10	9	12	57	sw.	7.2	53	w.
1889....	68.4	97	33	7.61	.....	14	0	7	9	15	.....	sw.	8.6	52	ne.	1903....	68.0	100	34	3.67	2.66	12	0	12	11	8	53	sw.	8.0	48	e.
1890....	68.4	100	35	3.13	.....	10	0	10	12	9	.....	sw.	8.3	48	s.	1904....	68.6	98	39	2.95	2.97	11	0	13	11	7	68	sw.	8.2	49	w.
1891....	66.0	101	35	3.91	.....	12	0	10	10	11	.....	sw.	8.3	46	ne.	1905....	69.9	98	38	3.63	4.47	11	0	13	11	7	63	sw.	8.0	53	nw.
1892....	70.0	102	24	2.91	.....	11	0	11	14	16	.....	sw.	8.2	48	sw.	1906....	69.1	97	35	4.64	3.30	12	0	12	10	9	56	sw.	7.6	47	w.
1893....	68.2	98	36	2.27	.....	10	0	13	13	5	.....	sw.	8.1	49	nw.	1907....	69.0	106	38	3.02	3.00	10	0	13	11	7	64	sw.	8.0	50	w.
1894....	71.0	106	38	3.06	2.34	7	0	13	12	6	68	s.	8.9	51	w.	1908....	71.6	101	34	3.61	3.42	9	0	14	11	6	66	sw.	8.2	57	w.
1895....	67.0	98	34	3.86	4.13	12	0	10	13	8	60	sw.	8.2	46	ne.	1909....	67.2	100	30	2.19	3.09	8	0	16	10	5	66	sw.	9.6	47	n.
1896....	70.0	96	39	3.66	2.24	13	0	10	11	10	52	sw.	9.5	50	s.	1910....	70.6	99	38	2.39	2.44	7	0	18	9	4	66	sw.	8.3	48	sw.
1897....	70.6	102	40	5.97	8.11	12	0	9	10	12	46	sw.	9.8	67	s.	1911....	72.6	106	40	3.95	4.85	8	0	17	9	5	65	sw.	8.9	65	ne.
1898....	70.0	103	30	3.85	6.22	8	0	13	10	8	60	sw.	7.9	60	ne.	1912....	69.6	101	31	3.17	3.27	7	0	14	10	7	67	sw.	9.4	54	sw.
1899....	69.1	101	33	1.67	3.50	11	0	13	11	7	61	sw.	10.0	49	nw.	1913....	69.6	102	32	2.66	4.99	9	0	16	10	5	67	sw.	9.9	52	nw.
1900....	70.5	100	39	3.03	2.64	9	0	14	11	6	65	sw.	9.0	68	sw.	1914....	66.4	93	35	3.59	3.25	11	0	11	10	10	50	sw.	8.3	56	ne.
1901....	71.4	104	36	4.22	3.50	11	0	12	10	9	65	sw.	7.5	54	w.	1915....	67.8	94	37	7.49	4.86	15	0	10	12	9	52	sw.	7.8	51	ne.



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U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU

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# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

AUGUST, 1915

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BY

JOHN W. SMITH

DISTRICT FORECASTER AND SECTION DIRECTOR

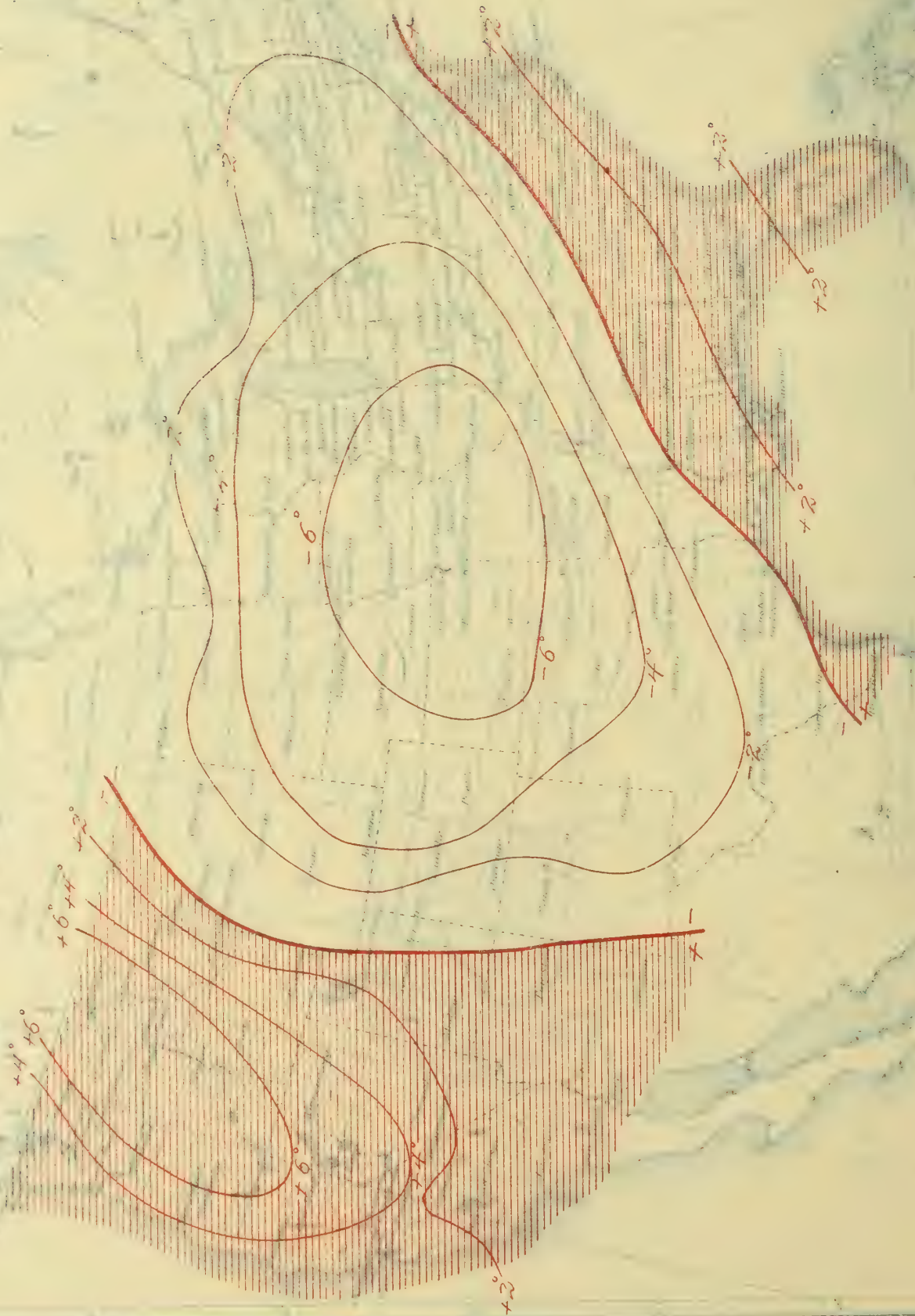
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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
SEPTEMBER 20, 1915



# Departure of the Mean Temperature from the Normal, August, 1915.



Shaded portions show excess (+).  
 Unshaded portions show deficiency (-).  
 Lines show amount of excess or deficiency.



## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, District Forecaster and Section Director.

VOL. XXVII. BOSTON, MASS., AUGUST, 1915. No. 8.

## GENERAL SUMMARY.

Much the same conditions that prevailed in July continued through August, the month being somewhat cooler than usual, with precipitation much above the normal and a marked deficiency in sunshine. The amount of sunshine received being the least for any August since the automatic records were begun in 1894. The average temperature for the month was not unusually low, and at scattered stations it was above the normal. There were, however, very few warm days, and at only a few stations were maxima above 88° recorded. Minimum temperatures near or slightly below the freezing point with light frosts, occurred in some localities in the northern states on the 28th, but caused no material damage. The average precipitation was the greatest for any August since 1888, with the exception of 5.67 inches in 1898. During the first decade rain fell nearly every day, and in the remainder of the month there were only two or three days at a time without general showers. The monthly totals were greatest in the southern states, where from 6 to 8 inches fell at the greater number of stations, and at only a few stations in the northern states were amounts less than three inches received. The excessive rainfall and lack of sunshine caused much injury to hay, potatoes and corn. The average rainfall for the section for the present summer, 15.18 inches, for the months of June, July and August, is the greatest in the record extending back to 1888. The previous greatest summer rainfall was 15.03 inches in 1889.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 14 stations reporting, was 29.98 inches, which was normal for the month. The highest monthly mean was 30.00 inches, at Portland, Me., Northfield, Vt., and Fall River, Mass.; the lowest, 29.96 inches, at Burlington, Vt. The highest recorded was 30.33 inches, at Portland, Me., on the 4th; the lowest, 29.64 inches, at Eastport, Me., on the 18th. The monthly range for the section was 0.69 inch.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 14 stations, was 65.9°, which was 1.3° below the mean for August, 1914. The mean departure from the normal for 65 stations having ten or more years' record was -1.2°. During the past 27 years the average August temperature has been higher in 1915 and lower in 7 years than in the present year. The highest average for the month during this time was 70.0°, in 1906; the lowest, 61.8°, in 1903. The average temperature of the several states of the section, was as follows: Maine, 63.9°; New Hampshire, 64.7°; Vermont, 64.8°; Massachusetts, 67.2°; Rhode Island, 67.1°; Connecticut, 67.6°. The departures from normal were as follows: Maine, -1.3°; New Hampshire, -1.3°; Vermont, -0.4°; Massachusetts, -1.1°; Rhode Island, -1.2°; Connecticut, -1.4°. The highest monthly mean was 71°, at Westboro, Mass.; the lowest, 58.2°, at Eastport, Me. The highest recorded was 95°, at Woodstock, Vt., on the 1st; the lowest, 30°, at Patten, Me., and Woodstock, Vt., on the 1st. The greatest local monthly range was 56°, at Woodstock, Vt.; the least, 15°, at Block Island, R. I. The greatest daily range was 45°, at Woodstock, Vt., on the 28th.

## HUMIDITY.

The monthly average for the section, as determined from

observations taken at 8 a. m. and 8 p. m., 14 stations reporting, was 83 per cent, which was 2 per cent above the normal for the month. The highest monthly average was 91 per cent, at Nantucket, Mass., and Block Island, R. I.; the lowest, 76 per cent, at Fall River, Mass.

## PRECIPITATION.

The average for the section, as shown by the records of 81 stations, was 5.61 inches, which was 1.92 inches above the average for August, 1914, and with the exception of 5.67 inches in 1898, the greatest for any August in the record of the sectional averages extending back to 1888. The least for any August in this period was 1.66 inches in 1907. The average for the several states of the section was as follows: Maine, 4.62 inches; New Hampshire, 5.79; Vermont, 4.72; Massachusetts, 5.98; Rhode Island, 5.60; Connecticut, 7.30. The precipitation for the section as a whole, was 1.93 inches above the normal. The departures from the normal for the several states were as follows: Maine, +1.04 inches; New Hampshire, +2.10; Vermont, +0.96; Massachusetts, +2.28; Rhode Island, +1.89; Connecticut, +3.17. The greatest monthly amount was 10.06 inches, at Turners Falls, Mass.; the least, 2.07 inches, at Enosburg Falls, Vt. The greatest amount in any 24 hours was 4.00 inches, at Danielson, Conn., on the 3d and 4th. The average number of days with .01 inch or more of precipitation was 13, 3 more than the normal number for the month.

## WIND.

The prevailing direction of the wind was from the southwest, which is the normal direction for the month. The average monthly wind movement for the section, 14 stations reporting, was 6,309 miles. The average hourly velocity was 8.5 miles, which was 0.4 mile above the normal for the month, as determined from the records of the past 28 years. The greatest monthly wind movement was 11,008 miles, at Block Island, R. I.; the least, 3,199 miles, at Amherst, Mass. The highest velocity recorded was 48 miles per hour from the southeast, at Providence, R. I., on the 4th. This is about the usual maximum velocity recorded in August.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 10; partly cloudy, 10; cloudy, 11. The normal for the month, as determined from the records of the past 28 years, is 12 clear, 10 partly cloudy, and 11 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 46, which was 14 per cent below the normal for the month, 6 per cent below the average for August, 1914, and the least amount for any August since the beginning of the automatic records in 1894. The greatest percentage of the possible sunshine in any August in this time was 67 in 1895. The greatest percentage of possible sunshine was 60, at Boston, Mass.; the least, 35, Amherst, Mass.

## DATES OF MISCELLANEOUS PHENOMENA.

*Halos, Lunar.*—Boston, Mass., 27, 30.

*Auroras.*—Eastport, Me., 6; Bethlehem, N. H., 17.

*Killing frosts.*—Farmington and North Bridgton, Me., 27; Greenville, Howe Brook, Millinocket, Patten and Presque Isle, Me., 28.

*Halos, Solar.*—Northfield, Vt., 3, 4, 12, 15, 28; Blue Hill, Mass., 8, 27, 31; Boston, Mass., 12, 27; Hartford, Conn., 27, 31; New Haven, Conn., 12, 27, 31; North Grosvenor Dale, Conn., 27.

*Thunderstorms* (dates and number of observers reporting on each): Maine—8th, 1; 9th, 1; 13th, 1; 14th, 1; 15th, 1; 16th, 1; 22d, 1; 25th, 1. New Hampshire—1st, 1; 8th, 1; 9th, 1; 15th, 1; 23d, 1. Vermont—1st, 1; 2d, 1; 7th, 1; 8th, 2; 9th, 2; 12th, 1; 15th, 1; 16th, 2; 23d, 1; 14th, 1. Massachusetts—7th, 1; 9th, 1; 22d, 2; 25th, 1; 30th, 1. Rhode Island—1st, 1; 8th, 2; 9th, 2; 25th, 2. Connecticut—1st, 1; 2d, 1; 8th, 2; 9th, 2; 13th, 1; 16th, 1; 22d, 2; 25th, 2.



[illegible]

The departures from normal temperature and precipitation are computed only for such stations as have ten or more years of record, but all complete reports are used in determining section or state means. Reference letters, a, b, c, appearing in the table indicate number of days missing; for example, <sup>b</sup> represents two days.  
<sup>†</sup> Also on other dates. \*Received too late to be included in means and summaries. \*\* Temperature data are from observed readings of the dry bulb; means<sup>c</sup> computed from observed readings. † Thermometers not supplied by Weather Bureau.  
<sup>††</sup> Post-office addresses of these stations are as follows: Cornwall, Middlebury, Vt.; Blue Hill, Hyde Park, Mass.; Cream Hill, W. Cornwall, Conn.; Canton, Collinsville, Co.



## Day of month.

Continued on page 64

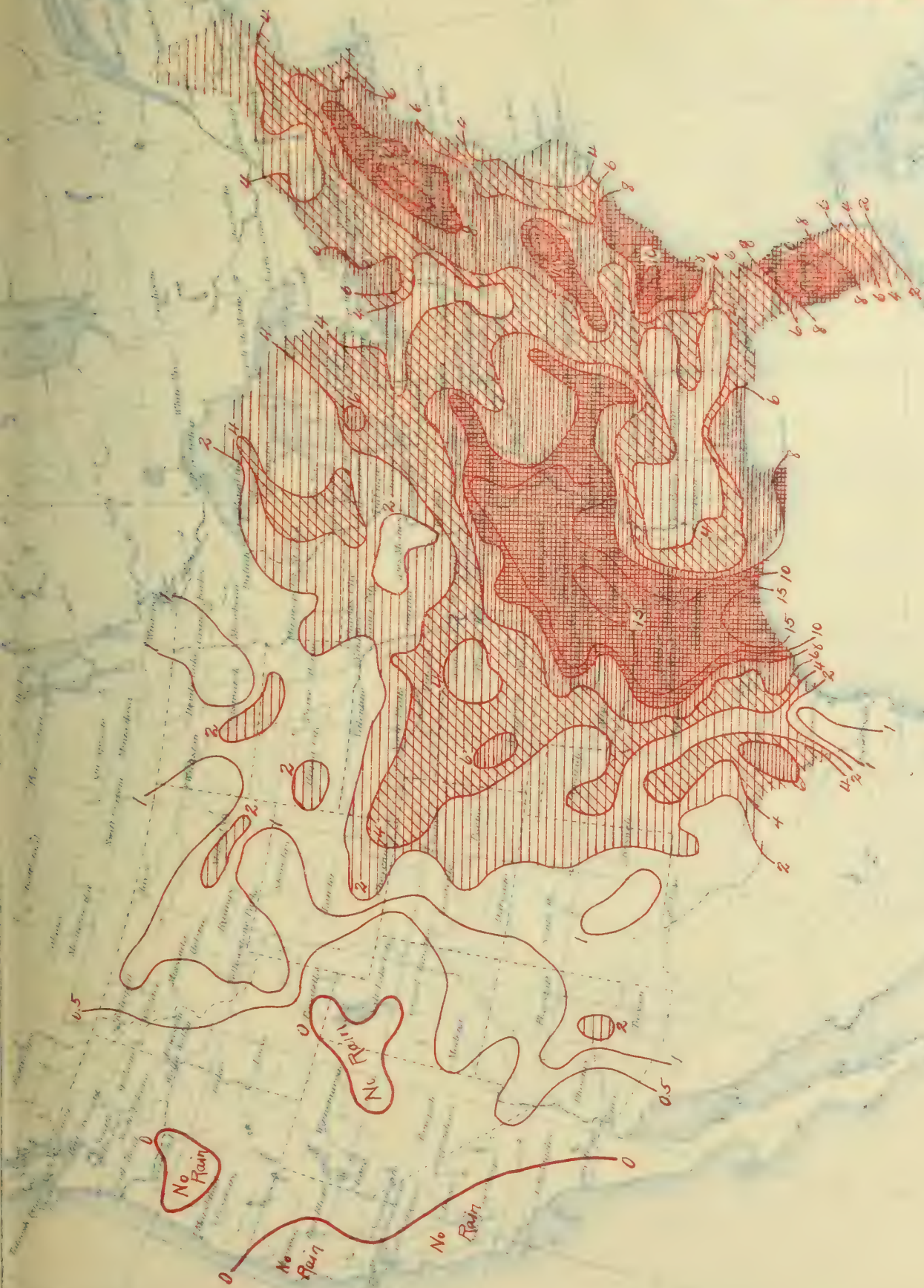
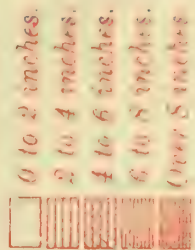


## Daily Temperatures for August, 1915.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Maine.																																
Bar Harbor	Maximum	82	70	73	65	60	75	72	76	78	79	84	90	80	89	85	87	74	71	76	84	83	79	83	85	81	79	71	64	66	69	
	Minimum	62	63	54	52	51	55	53	58	60	58	54	58	64	62	60	64	55	46	49	48	52	60	63	60	61	51	38	37	47	52	53
Cornish	Maximum	68	58	63	66	70	67	60	69	56	64	70	81	60	75	59	71	63	60	70	71	66	66	63	63	57	71	63	62	58	59	70
	Minimum	52	52	50	50	51	55	53	53	52	51	52	54	52	52	52	53	50	48	50	53	51	50	55	52	52	53	46	46	48	52	52
Eastport	Maximum	79	68	72	67	70	76	58	71	67	67	81	87	70	80	75	80	61	63	69	77	78	67	71	79	72	66	60	67	64	61	60
	Minimum	64	57	46	46	50	47	52	55	59	59	51	57	61	60	59	59	49	41	47	55	48	58	60	56	60	54	41	32	44	51	53
Greenville	Maximum	82	70	73	70	76	79	73	75	70	69	86	86	76	81	77	80	69	62	73	80	80	76	68	82	75	71	63	69	69	69	64
	Minimum	65	60	42	48	54	45	54	57	60	60	49	60	64	59	58	64	54	50	52	52	50	59	62	62	62	52	39	32	43	57	57
Millinocket	Maximum	83	79	75	78	72	80	78	73	77	69	85	89	87	82	86	84	80	80	83	83	85	79	70	82	83	80	66	68	69	67	70
	Minimum	62	62	48	50	46	67	55	58	58	60	52	58	62	63	61	60	57	46	50	53	55	58	61	62	58	47	49	36	46	57	55
Orono	Maximum	68	66	67	61	58	66	67	65	67	72	80	80	72	82	80	83	72	68	76	78	75	70	73	74	79	53	47	46	53	67	
	Minimum	59	61	56	53	53	55	56	57	58	56	59	61	62	62	66	65	54	51	51	58	57	61	63	58	59	47	46	53	58	63	
Portland	Maximum	80	75	74	75	78	81	66	70	65	72	84	86	79	80	73	80	66	53	70	74	82	72	70	82	73	70	60	65	67	63	69
	Minimum	60	55	37	39	43	45	47	58	59	65	48	55	62	63	62	50	47	50	46	55	58	61	62	60	52	36	32	38	40	42	
Presque Isle	Maximum	78	72	70	68	62	74	68	69	74	70	81	84	75	83	82	84	66	56	72	81	80	70	78	80	74	70	64	65	64	64	64
	Minimum	64	60	56	54	51	55	55	63	62	60	56	58	62	64	64	54	51	55	55	54	62	66	61	60	52	43	39	49	55	48	
Rumford	Maximum	64	60	56	54	51	55	55	63	62	60	56	58	62	64	64	54	51	55	55	54	62	66	61	60	52	43	39	49	55	48	
	Minimum	59	55	51	49	46	53	53	55	53	51	49	51	53	53	53	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49
Van Buren	Maximum	64	60	56	54	51	55	55	63	62	60	56	58	62	64	64	54	51	55	55	54	62	66	61	60	52	43	39	49	55	48	
	Minimum	59	55	51	49	46	53	53	55	53	51	49	51	53	53	53	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49
New Hampshire.																																
Alstead Center	Maximum	84	79	68	59	60	67	76	77	72	81	77	78	78	77	78	72	64	71	78	76	72	77	81	73	68	66	64	58	65	62	
	Minimum	67	67	53	51	53	63	54	67	62	56	57	59	64	65	60	63	57	46	49	55	58	63	65	58	63	53	42	40	55	54	51
Bethlehem	Maximum	84	76	70	70	65	70	73	79	76	68	80	82	79	81	68	62	71	77	78	72	77	78	72	78	70	68	61	67	68	61	59
	Minimum	60	61	54	51	50	57	52	56	58	57	53	54	58	61	58	60	51	41	47	50	53	66	62	61	58	50	35	35	48	50	49
Concord	Maximum	84	71	68	65	62	69	77	84	77	78	84	84	83	86	84	85	70	68	75	82	78	76	82	84	80	72	68	65	61	66	66
	Minimum	66	63	57	53	54	55	55	60	60	55	56	55	65	63	59	65	53	51	53	52	54	64	65	59	59	50	43	40	51	57	48
Franklin	Maximum	88	71	73	61	61	69	78	82	79	76	85	85	85	85	85	85	74	69	76	82	78	76	81	84	78	71	68	69	64	66	64
	Minimum	68	66	55	54	53	55	54	60	56	54	55	55	63	61	59	63	58	48	50	49	52	62	66	58	63	51	41	40	43	56	54
Hanover	Maximum	88	81	72	68	64	73	79	84	80	75	84	84	82	82	80	81	84	70	67	76	82	77	74	81	84	78	71	67	70	68	62
	Minimum	62	68	57	51	52	57	55	58	69	56	54	55	66	62	62	60	62	56	47	48	49	53	64	66	63	59	50	38	38	50	56
Nashua	Maximum	80	73	70	64	62	64	81	85	77	80	87	96	87	89	80	72	78	85	81	78	86	87	86	87	80	77	80	70	63	68	71
	Minimum	66	65	57	56	54	55	61	61	57	57	57	65	65	62	65	63	49	48	51	56	65	68	60	66	51	43	44	52	57	53	
Plymouth	Maximum	84	72	70	63	64	72	78	80	76	78	83	82	81	83	70	65	74	78	78	72	78	72	78	71	64	66	64	64	64	63	64
	Minimum	62	66	56	53	52	57	54	60	59	56	54	55	62	63	59	62	58	47	54	45	53	64	65	59	63	55	40	38	46	56	54
Vermont.																																
Burlington	Maximum	79	77	72	69	70	74	76	78	23	72	82	83	81	78	76	83	67	68	75	78	77	77	78	80	75	66	63	70	68	68	60
	Minimum	65	59	53	53	55	60	59	61	59	57	55	58	64	64	62	62	51	49	55	54	57	62	64	59	62	62	61	52	57	62	42
Enosburg Falls	Maximum	83	79	77	73	78	76	79	80	78	71	85	76	82	88	81	82	73	66	73	81	82	76	80	83	76	66	64	73	73	71	66
	Minimum	63	62	51	53	56	58	54	58	60	60	49	52	63	63	58	59	54	39	48	46	50	62	59	61	62	54	32	32	48	57	48
Northfield	Maximum	85	78	68	66	62	71	76	79	77	70	81	82	73	80	78	82	68	64	72	79	75	72	78	80	73	65	61	67	67	65	59
	Minimum	59	61	54	53	52	56	55	58	58	54	50	51	61	59	56	57	46	46	48	46	50	60	62	50	55	41	46	33	49	55	38
St. Johnsbury	Maximum	87	81	79	73	67	80	77	81	80	74	86	85	82	82	82	83	78	66	74	84	80	76	82	83	80	73	66	72	70	69	66
	Minimum	60	64	56	56	53	57	55	56	60	59	55	55	60	62	59	61	56	43	53	48	51	63	65	63	64	57	38	36	50	55	53
Wells	Maximum	85	75	70	65	65	70	75	76	76	78	78	78	78	78	80	78	70	65	72	75	76	78	78	75	68	60	68	70	66	62	62
	Minimum	65	66	56	52	51	55	56	60	58	56	54	58	62	63	60	62	55	41	48	50	58	62	64	62	52	38	40	50	55	50	50
Massachusetts.																																
Amherst	Maximum	83	82	68	62	64	66	78	84	80	81	86	81	88	85	84	86	74	70	78	82	76	75	81	86	78	73	71	69	60	72	71
	Minimum	69	70	55	55	55	57	56	63	63	58	56	66	66	64	61	66	51	47	49	51	56	66	65	58	58	52	42	44	53	57	52
Blue Hill	Maximum	76																														



Scale of Shades.





## Daily Precipitation for August, 1915—Continued from page 61.

Stations.	Watershed.	Day of month.																														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
<i>Rhode Island.</i>																																
Block Island ***	Coast		.01	T.	1.40		.07		.01	.09				.52				T.					1.11			.84				.13	.40	.01
Bristol	do		.54	T.	1.60		*	.25	*	.23				.79				T.					.45			.45					.23	
Greene	do																															
Hope Valley	do		.52	.02	3.09			.30	.36	.11				.79								.80				1.80				.14	.16	
Kingston	do		1.55		.205		.67		.11	.20				.62									1.13		1.03				.15	.23		
Narrag'sett Pier***	do		1.90	.16	1.42	.04	.12	.15	.12	.15								T.					1.43		.85				.16	.26	*	
Pawtucket	do		.28	*	1.95		*	.20	*	.13				1.01				T.					.65		.57				*		.83	
Providence***	do		T.	.21	.02	1.30		.13	.01	.04	.20			.83				T.					.74		.56				.26	.18	T.	
Wallum Lake	do		.05	.82		.20	.10			.06	.70			1.40									.65		.35				.13			
<i>Connecticut.</i>																																
Bridgeport	Coast		.05	.13	.41	3.75		.13		.69	.05			.44				T.					.30		.48				.39	.15		
Canton	Connecticut		.55	.12	3.80		.53		.21	.29			.72				.70						.65		.34			*	.41			
Colechester	Coast		.04	1.02	1.05	2.25		.60	.06	.30	.13			.73			T.	T.					.93	.07	.65				.07			
Cream Hill	Housatonic.		.03			1.80		.20		.24	.17			.12	.54		.01	.45	.02				2.77		.16				.42	.31		
Danielson	Coast		.45	*	1.09		.80		.20	.30			.75										.65		.40				.16			
Falls Village	Housatonic.		.04	.06	.04	1.82		.20		.06	.12			.46			T.	.87				.04	2.60		.16				.42	.52		
Hartford **	Connecticut		T.	1.24	.01	2.03		.33	T.	.18	.57	T.		.24	.60		T.	.26	T.				.71		.33			T.	.22	.08		
Hawleyville	Housatonic.																															
Lake Konomocit	Coast		.05	.30	1.04	3.05		.68		.48	.14			.35								T.	.52		1.55						.85	
New Haven***	do		.01	.41	.03	3.19		.42		.46	.05			.27									.73		.28				.26	.08		
New London	do		.17	.27	2.60		.18	.92	.20	.25				.48									.11		1.70				.25	.35		
N. Grosvenor Dale	do		.19	.07	2.63		.20		.04	2.10				.83				.02					.69	.08	.54				.09	T.		
Norwalk	do			*	4.85		.45		.45	.13			.34										.50		.46				.38	.05		
Southington	do		.05	.80	3.25	T.	T.	.15	.25	.15	.25			.90									.45	.30	.60				.30	.10		
Storrs	Coast		.25		.29		.33		.25	.06				.95									.65		.53				.08	.10		
Torrington	Housatonic.						*		.49	.10			1.20												.12			*	.47			
Volltown	Coast		.78	.24	2.50		.22		.10						.02								.65		.12				*	.47		
Wallingford	do		.40	.95	.20		.22		.10							.02							.50	.32	.60				.02		.04	
Waterbury	Housatonic.		.10	.25	3.35		.23	.07		1.04				.67			T.						1.28		.41				.30	.12		

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations.

T. Precipitation is less than 0.01 inch rain or melted snow. \*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

† Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomocit, New London Water Works, New London, Conn.

## Comparative Data for New England for August.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.		
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.
1888...	67.3	94	31	5.25	.....	11	0	10	10	11	...	SW.	1902...	64.8	92	39	3.54	4.43	9	0	14	10	7	55	sw.
1889...	65.2	94	35	3.72	.....	11	0	11	10	10	...	SW.	1903...	61.8	93	29	4.09	4.02	11	0	11	9	11	61	nw.
1890...	63.6	94	32	4.74	.....	12	0	7	11	10	...	SW.	1904...	65.3	93	30	4.31	4.35	10	0	15	9	9	62	sw.
1891...	68.2	96	34	3.73	.....	12	0	4	12	11	...	SW.	1905...	65.4	92	32	3.67	3.25	10	0	14	8	9	66	sw.
1892...	67.8	97	34	5.45	.....	11	0	10	9	12	...	SW.	1906...	70.0	102	33	2.63	4.16	7	0	16	8	7	64	sw.
1893...	67.8	102	34	5.22	.....	11	0	13	9	9	...	SW.	1907...	64.6	99	33	1.68	5.59	8	0	15	10	6	65	nw.
1894...	65.8	94	29	1.75	3.04	8	0	11	11	9	61	SW.	1908...	65.8	98	32	4.91	5.23	9	0	16	7	8	60	sw.
1895...	66.8	96	35	3.56	3.16	8	0	12	13	6	67	SW.	1909...	68.1	100	24	2.85	3.75	7	6	16	8	7	62	nw.
1896...	67.8	100	28	3.17	2.44	10	0	13	10	8	54	SW.	1910...	65.7	99	29	3.05	3.31	8	0	14	10	7	58	sw.
1897...	69.1	96	33	1.16	1.60	9	0	14	9	8	54	SW.	1911...	68.9	97	34	4.85	4.55	9	0	13	8	10	54	sw.
1898...	69.6	95	33	5.67	4.08	13	0	10	11	10	50	SW.	1912...	61.3	92	29	4.03	3.21	10	0	11	12	8	59	sw.
1899...	67.4	90	32	1.66	1.89	9	0	15	9	7	60	SW.	1913...	67.2	100	30	3.00	2.75	8	0	16	10	5	60	sw.
1900...	69.1	104	34	2.78	2.44	9	0	15	10	6	63	SW.	1914...	67.2	96	32	3.63	2.80	11	0	12	9	10	52	sw.
1901...	68.8	92	34	1.49	5.29	9	0	12	10	9	63	SW.	1915...	65.9	95	30	5.61	10.06	13	0	10	10	11	46	sw.



U. S. DEPARTMENT OF AGRICULTURE

WEATHER BUREAU

CHARLES F. MARVIN, CHIEF

OCT 22 1915

# CLIMATOLOGICAL DATA

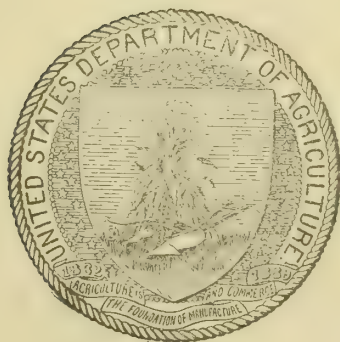
NEW ENGLAND SECTION

SEPTEMBER, 1915

BY

JOHN W. SMITH

DISTRICT FORECASTER AND SECTION DIRECTOR



BOSTON, MASS.  
WEATHER BUREAU OFFICE  
OCTOBER 20, 1915



# Departure of the Mean Temperature from the Normal, September, 1915.





U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

NEW ENGLAND SECTION.

J. W. SMITH, District Forecaster and Section Director.

XXVII. BOSTON, MASS., SEPTEMBER, 1915.

No. 9.

GENERAL SUMMARY.

The month was warmer than usual, with less than an average amount of precipitation. There was more than the usual amount of sunshine. No damaging frosts occurred at anytime, and favorable conditions prevailed through the month, with the exception of the severe gale on the 26th and 27th, which blew off much fruit and caused considerable injury to corn. The temperature during the first and second decades was above the normal, with maxima above 80° over the greater portion of the month on the majority of days during this period, and above the normal on several dates. During the third decade the temperature was somewhat below the normal. The average temperature for the section was the highest of any September in the past 28 years, with one exception. A fairly heavy rainfall was general on the 26th, otherwise the precipitation was light and scattered. The monthly totals at the majority of stations were less than two inches, and at several points less than one inch fell. At only a few stations were amounts exceeding three inches recorded. The deficiency was somewhat greater in New Hampshire, Massachusetts and Connecticut, than in Maine, Vermont and Rhode Island. Snow was recorded at a few stations in Maine on the 26th. The warm and fair weather of the month was of much benefit to the growth and maturing of late crops which had been retarded by the deficiency in temperature and excessive precipitation of the preceding two months.

PRESSURE.

The mean sea-level atmospheric pressure for the section, 15 stations reporting, was 30.05 inches, which was .02 inch below the normal for the month. The highest monthly mean was 30.07 inches, at Fall River, Mass., and Hartford, Conn.; the lowest, 29.99 inches, at Eastport, Me. The highest recorded was 30.46 inches, at Burlington, Vt., on the 25th; the lowest, 28.93 inches, at Eastport, Me., on the 26th. The monthly range for the section was 1.53 inches.

TEMPERATURE.

The monthly mean for the section, as shown by the records of 15 stations, was 63.4°, which was 3.2° above the mean for September, 1914, and also the highest, with one exception, of any September in the past 27 years. The highest September average for the time was 63.8°, in 1891; the lowest, 56.1°, in 1893. The average temperature of the several states of the section, was as follows: Maine, 60.3°; New Hampshire, 62.3°; Vermont, 63.8°; Massachusetts, 65.3°; Rhode Island, 64.7°; Connecticut, 64.9°. The average temperature for the section was 3.4° above the normal. The departures from the normal for the several states were as follows: Maine, +2.8°; New Hampshire, +2.8°; Vermont, +4.4°; Massachusetts, +3.7°; Rhode Island, +3.7°; Connecticut, +3.8°. The highest monthly mean was 66.8°, at Bridgeport, Conn.; the lowest, 54.8°, at Van Buren, N. H. The highest recorded was 96°, at Nashua, N. H., on the 25th; the lowest, 25°, at Madison, Me., on the 27th. The greatest local monthly range was 66°, at Norfolk, Mass.; the greatest daily range was 5°, at Nantucket, Mass. The greatest daily range was 5°, at Hyde Park, Vt., on the 2d.

HUMIDITY.

The monthly average for the section, as determined from 15 stations taken at 8 a. m. and 8 p. m., 15 stations reporting, was 74 per cent, which was 2 per cent below the normal for the

month. The highest monthly average was 86 per cent, at Block Island, R. I.; the lowest, 74 per cent, at Portland, Me., and Boston, Mass.

PRECIPITATION.

The average for the section, as shown by the records of 82 stations, was 1.79 inches, which was 0.81 inch above the average for September, 1914. During the past 27 years the average September precipitation has been less in 3 years and greater in 24 years than that of the present year. The greatest average for any September in this period was 8.29 inches, in 1888; the least, 0.98 inch, in 1914. The averages for the several states of the section were as follows: Maine, 2.02 inches; New Hampshire, 1.56; Vermont, 2.32; Massachusetts, 1.36; Rhode Island, 1.74; Connecticut, 1.83. The average precipitation for the section was 1.79 inches below the normal. The departures from the normal for the several states were as follows: Maine, -1.50 inches; New Hampshire, -1.98; Vermont, -1.42; Massachusetts, -2.10; Rhode Island, -1.53; Connecticut, -1.95. The greatest monthly amount was 4.75 inches, at Van Buren, Me.; the least, 0.20, at Newton, N. H. The greatest amount in any 24 hours was 2.78 inches, at Canton, Conn., on the 21st. The average number of days with .01 inch or more of precipitation was 6, 3 less than the normal for the month.

WIND.

The prevailing direction of the wind was from the northwest; the normal direction for the month is from the southwest. The average monthly wind movement for the section, 15 stations reporting, was 6,767 miles. The average hourly velocity was 9.4 miles, which was 0.6 mile above the average for September, last year, and 0.4 above the normal for the month, as determined from the records of the past 28 years. The greatest monthly wind movement was 11,336 miles, at Block Island, R. I.; the least, 3,332 miles, at Amherst, Mass. The highest velocity recorded was 62 miles per hour from the northwest, at Providence, R. I., on the 26th. This is greater than the usual maximum velocity for the month.

SUNSHINE AND CLOUDINESS

The average number of clear days for the section was 17; partly cloudy, 7; cloudy, 6. The normal for the month, as determined from the records of the past 28 years, is 13 clear, 8 partly cloudy, and 9 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 63, which was 10 per cent above the normal for the month, and 8 per cent below the average for September, 1914. The greatest percentage of possible sunshine in any September since the beginning of the automatic records in 1894, was 77, in 1903; the least, 41, in 1907. The greatest percentage of possible sunshine was 77, at Portland, Me.; the least, 49, Amherst, Mass.

DATES OF MISCELLANEOUS PHENOMENA.

*Halos, Lunar.*—Woodstock, Vt., 20; Boston, Mass., 24.

*Halos, Solar.*—North Bridgton, Me., 25; Woodstock, Vt., 21, 24, 25; Blue Hill, Mass., 1, 4; Boston, Mass., 5; New Haven, Conn., 1, 4.

*Thunderstorms* (dates and number of observers reporting on each)—Maine: 15th, 1; 17th, 3; 19th, 1. New Hampshire: 17th, 1. Vermont: 7th, 1; 8th, 2; 13th, 1; 14th, 1; 16th, 2; 17th, 1; 19th, 1; 21st, 2. Massachusetts: 16th, 1. Rhode Island: 17th, 2. Connecticut: 16th, 1; 17th, 2; 21st, 1.

*Auroras.*—Ashland, Me., 29; Eastport, Me., 16, 22, 29; Alstead Center, N. H., 27, 28, 29; Franklin, N. H., 27; Hanover, N. H., 16, 28, 29; Burlington and Cavendish, Vt., 28; Enosburg Falls, Vt., 18, 30; Fall River, Mass., 28; Rockport, Mass., 26, 28, 30; Falls Village, Conn., 29; Hartford, Conn., 28, 29.



Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				No. of days—				Prevailing direction of wind.	Observer.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.			Cloudy.
<b>Maine.</b>																				
Bar Harbor §	Hancock	20	29															William Miller.		
Cornish	York	778	60	63.2	+4.4	92	16	33	23	38	1.64	-2.31	0.72	0	4	15	10	T. H. West.		
Eastport	Washington	53	43	57.0	+1.8	80	11	38	27	26	1.21	-1.75	0.56	0	7	11	6	E. S. Weather Bureau.		
Fairfield	Somerset	90	30	60.4	+2.7	85	16	33	23	33	1.31	-1.61	0.97	0	3	20	2	E. F. Parker.		
Farvington	Franklin	450	18	61.0	+2.9	89	16	33	22†	39	2.02	-1.54	1.58	0	5	15	6	State Normal School.		
Gardiner §	Kennebec	163	23	58.0	-1.8	88	16	35	23	25	1.21	-2.05	0.65	0	5	22	3	Samuel D. Soule.		
Greenville	Piscataquis	1,140	11	58.4		87	16	31	22	36	3.74	-0.43	1.39	0	11	18	5	U. S. Weather Bureau.		
Houlton	Aroostook	362	13	61.3		83	10	32	26	36	2.37	-0.43	1.02	0	4	17	8	Bangor & Aroostook		
Lewiston	Androscooggin	185	32	62.2	+3.0	90	16	40	23	32	1.13	-2.34	0.81	0	5	15	10	Union Water Power Co.		
Madison §	Somerset	257	12	59.5		87	16	25	27	36	2.20	-1.98	1.80	0	6	22	0	William Jardine.		
Millinocket	Penobscot	386	12	59.6		85	10	33	23†	35	3.13	-2.06	1.28	0	10	18	4	Great Northern Paper.		
North Bridgton	Cumberland	450	22	63.2	+3.4	90	15†	34	27	35	1.64	-0.89	0.90	T	8	14	11	G. E. Chadbourn.		
Orono §	Penobscot	129	46	62.0	+4.9	89	17	30	26	38	1.19	-2.37	0.63	0	4	22	1	Department of Physics.		
Patten	do	550	13	59.2		84	10	28	25†	42	2.80	-1.50	1.80	0	3	10	6	Bangor & Aroostook		
Portland	Cumberland	99	44	61.4	+1.8	89	17	40	28	28	0.62	-2.64	0.24	0	3	18	6	U. S. Weather Bureau.		
Presque Isle	Aroostook	1,000	6											T	11	15	6	E. M. Libby.		
Rumford §	Oxford	505	22	61.4	+3.6	90	15	39	25	33	1.84	-1.47	1.24	0	4	24	2	Charles A. Mixer.		
Schoodic	Piscataquis	300												0	4	24	2	R. H. Cable.		
Van Buren	Aroostook	510	11	54.8		83	7	28	25	41	4.75	+1.55	1.56	T	0	11	5	J. M. Thomas.		
Winslow	Kennebec	90	20	63.2	+3.9	90	16	34	23	37	1.48	-1.74	1.05	0	2	25	0	Hollingsworth & White.		
<b>New Hampshire.</b>																				
Alstead Center	Cheshire	1,120	11	62.2	+2.4	86	15	35	28	28	1.90	-1.69	1.59	0	6	24	3	Frank Dewing.		
Bethlehem	Grafton	1,470	23	59.0	+2.5	87	15	32	30	33	2.36	-1.43	1.32	T	9	19	3	Benjamin Tucker.		
Concord	Merrimac	350	55	63.4	+4.3	92	15	39	23	36	1.21	-2.22	0.59	0	5	20	4	U. S. Weather Bureau.		
Durham §	Stafford	88	20	62.4	+1.9	93	15	37	23	33	0.85	-2.82	0.65	0	6	15	10	Agr. Exp. Station.		
Franklin	Merrimac	440	16	63.4	+3.5	91	15	36	23	38	1.67	-2.24	1.29	0	7	17	8	Dr. C. P. Webster.		
Glencliff	Grafton	1,650	2	60.3		87	16	30	29	33	1.90		0.85	0	6	13	10	State Sanatorium.		
Grafton	do	863	29																	

The departures from normal temperature and precipitation are computed only for such stations as have ten or more years of record, but all complete reports are used in determining section or state means. Reference letters, a, b, c, appearing in the table indicate number of days missing; for example, <sup>b</sup> represents two days missing. <sup>†</sup> Also on other dates. \* Received too late to be included in means and summaries. \*\* Temperature data are from observed readings of the dry bulb; means computed from observed readings. † Thermometers not supplied by Weather Bureau. T. Precipitation is less than 0.01 inch rain or melted snow. § Thermometers not supplied by Weather Bureau. ¶ Post-office addresses of these stations are as follows: Cornwall, Middlebury, Vt.; Blue Hill, Hyde Park, Mass.; Cream Hill, W. Cornwall, Conn.; Canton, Collinsville, Co.



Daily Precipitation for September, 1915.

Stations.	Watershed.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Maine.																																	
Ashland	St. John									.09				.53						.12		.31	.63		.07		1.03	.32				3.10	
Bar Harbor	Coast																																
Cambridge	Kennebec																																
Cornish	Saco						.02							.72				T.				.66						.24				1.64	
Danforth	Penobscot																																
Eastport ***	Coast								.01					.03	.07			.04				.47	.03					.56		T.		1.21	
Eustis	Kennebec																																
Fairfield	do																																
Farmington	do							T.						.09	.06					.10		.97						.24		T.		1.41	
Gardiner	do													.04			T.				1.58						.28	.01			2.02		
Greenville **	do													.04							.65	.32					.15	.05					
Houlton	St. John								.11					.08	.26	.26		.30		.35		.37	1.30		.02		.41	.19				3.74	
Howe Brook	Penobscot								.37		.09										1.02	.16	.82		.25		.35	.63				2.37	
Lewiston	Androscoggin						.08							.05						.12		.81					.58	.80	.06			3.04	
Madison	Kennebec													.05	T.		.02	T.									.17				1.13		
Millinocket	Penobscot													.06							.02	1.80		.02		.16					2.20		
North Bridgton	Saco								.04					.21	.02		.05	.05		.61	.02	1.28		.05			.82				3.13		
Oquossoc	Androscoggin													.38	.01			.07			.01	.90			T.		.19	.04	T.		1.64		
Orono	Penobscot													.65								1.80					.50				2.95		
Patten	do								.08		T.							.03					.63				.45				1.19		
Portland ***	Coast							T.													1.66						*	1.80			2.80		
Prosque Isle	St. John													.24	T.			T.				.23					.15				0.62		
Rumford	Androscoggin																																
Schoodic	Piscataquis													.18		T.										T.		.40	T.	T.		.84	
Van Buren	St. John									.57																							
Winslow	Kennebec													.45	.43	.06	.36		.03			.15	.70				1.56	.40		T.		4.75	
New Hampshire.																																	
Alstead Center	Connecticut																																
Bethlehem	do																															1.90	
Brookline	Merrimack																															2.36	
Concord ***	do																															1.19	
Durham	do																															1.21	
Franklin	do																															0.85	
Glenciff	do																															1.67	
Grafton	do																															1.90	
Hanover	Connecticut																																
Keene	do																															1.59	
Nashua	Merrimack																															2.44	
Newton	do																															0.59	
Plymouth	do																															0.20	
Vermont.																																	
Bloomfield	Connecticut																																
Burlington ***	Champlain																															3.31	
Cavendish	Connecticut																															0.97	
Chelsea	do																															1.80	
Cornwall	Champlain																															1.78	
Enosburg Falls	do																															0.77	
Hyde Park	do																															2.65	
Northfield ***	Champlain																															3.38	
Somerset	Connecticut																															1.36	
St. Johnsbury	do																															3.49	
Vernon	do																															3.22	
Wells	Champlain																															2.21	
Woodstock	Connecticut																															2.82	
Massachusetts.																																	
Amherst	Connecticut																															1.37	
Ashland	Merrimack																															1.29	
Bakers Bridge II	do																															0.96	
Bedford	do																															1.24	
Blue Hill	Coast																															0.74	
Boston ***	do																															0.69	
Brookton	Coast																															0.39	
Chestnut Hill	do																															1.02	
Clinton	Merrimack																															1.01	
Concord	do																															0.81	
Fall River	Coast																															1.73	
Fitchburg	Merrimack																															1.19	
Framingham	do																															1.03	
Haverhill	do																															0.60	
Hingham	Coast																															0.70	
Hyannis	do																																
Jefferson	Merrimack																															1.50	
Lake Cochituate II	do																															0.88	
Lawrence	do																															1.14	
Leominster	do																												</				

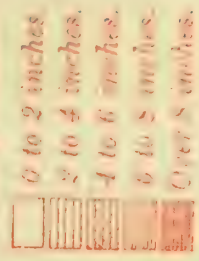


## Daily Temperatures for September, 1915.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean
Maine.																																
Bar Harbor	Maximum	74	81	83	80	77	79	85	90	90	85	76	61	86	90	92	91	79	76	76	68	64	70	65	64	64	59	59	62	69	76	
	Minimum	38	43	52	57	50	60	52	64	62	51	50	51	52	65	67	63	50	55	50	55	45	33	41	43	37	43	40	43	34	50	
Cornish	Maximum	64	66	70	75	62	65	77	69	64	71	80	65	56	64	60	79	74	70	63	65	65	57	64	60	54	60	49	51	56	62	
	Minimum	49	48	52	55	51	51	53	54	57	57	59	51	49	49	52	53	56	52	51	51	50	44	40	52	40	41	38	43	45	43	
Eastport	Maximum	70	80	79	75	76	73	80	75	81	79	77	69	63	79	80	87	79	69	70	69	62	58	65	62	54	55	55	46	50	64	
	Minimum	38	44	55	58	43	55	59	59	65	61	55	46	45	46	62	66	63	46	47	44	49	31	33	46	34	34	37	32	33	39	
Greenville	Maximum	70	80	80	78	76	71	82	73	82	85	80	75	66	73	82	78	83	71	72	70	63	61	66	59	57	59	59	50	56	64	
	Minimum	36	45	50	60	41	53	52	60	65	67	60	42	49	49	61	66	63	43	49	45	46	41	33	50	33	39	34	34	43	42	
Millinocket	Maximum	74	79	83	83	82	77	79	79	78	86	86	81	72	76	83	87	89	85	76	75	73	65	64	66	62	60	62	54	57	67	
	Minimum	39	45	50	58	45	54	56	61	63	62	48	37	50	51	57	66	64	47	54	52	47	43	37	47	36	30	50	35	43	38	
Orono	Maximum	64	71	73	87	66	69	73	75	75	86	82	68	60	75	80	86	89	70	69	66	64	58	62	62	60	65	53	55	56	66	
	Minimum	48	49	55	59	57	59	58	61	61	61	58	57	54	58	59	70	63	58	54	55	54	46	42	46	45	45	44	40	46	42	
Presque Isle	Maximum	68	81	80	82	76	74	76	80	85	82	76	70	57	85	90	86	84	72	74	71	66	54	65	61	53	59	48	49	51	62	
	Minimum	42	48	53	58	50	60	62	66	96	64	58	52	50	52	67	68	60	54	54	50	54	44	40	48	39	41	42	40	44	42	
Rumford	Maximum	63	67	72	70	68	77	83	81	77	79	74	65	62	58	77	74	73	65	68	63	58	58	63	60	57	50	53	46	46	55	
	Minimum	48	32	49	38	55	36	55	59	65	64	48	38	33	47	54	54	52	40	46	37	41	40	34	46	28	30	35	37	38	35	
Van Buren	Maximum	70	78	81	78	75	77	80	85	80	76	72	65	82	86	85	80	72	70	71	63	56	62	60	57	62	62	56	56	61		
	Minimum	43	50	58	61	58	62	58	63	68	65	56	58	55	55	70	68	65	54	56	52	55	47	42	44	40	39	39	40	40	40	
New Hampshire.																																
Alstead Center	Maximum	69	79	79	75	74	78	82	83	79	73	68	58	84	87	85	81	71	72	70	61	55	58	55	53	61	44	45	48	57	71.1	
	Minimum	37	47	52	59	48	47	55	62	64	64	52	48	50	51	65	67	62	47	55	46	50	40	33	46	45	34	35	34	40	32	
Bethlehem	Maximum	71	80	84	85	79	74	74	84	91	87	82	75	61	89	92	89	89	75	74	74	67	58	68	65	57	67	53	57	59	66	
	Minimum	40	44	55	57	57	59	57	66	67	83	53	53	54	54	68	70	65	55	57	53	50	43	39	43	40	39	44	42	44	40	
Concord	Maximum	71	82	83	85	82	73	78	85	89	85	82	77	67	88	91	89	87	77	75	77	65	59	69	61	60	62	65	57	59	66	
	Minimum	40	44	53	56	54	61	51	65	68	82	53	53	54	54	66	68	64	51	56	53	57	45	36	41	43	38	42	41	45	40	
Franklin	Maximum	73	83	85	85	80	79	79	86	88	84	80	74	62	89	91	88	84	70	65	55	57	53	50	43	39	43	42	47	44	40	
	Minimum	38	46	55	57	50	61	58	66	68	84	56	49	56	55	66	66	64	50	58	54	57	47	42	32	45	41	37	42	38	43	
Hanover	Maximum	72	79	84	89	73	80	81	80	95	92	95	80	67	95	96	96	94	79	77	79	69	65	70	66	66	68	59	64	66	69	
	Minimum	44	44	52	59	59	62	56	66	69	64	54	54	61	65	69	72	65	59	56	50	61	66	64	66	68	48	48	49	44	38	
Nashua	Maximum	68	81	79	81	75	73	75	82	86	81	80	73	63	85	88	87	84	72	74	72	64	58	61	56	65	64	49	54	54	60	
	Minimum	37	47	53	56	49	62	59	66	65	63	57	50	53	53	67	66	65	47	58	54	56	44	36	36	42	39	41	40	44	38	
Plymouth	Maximum	72	81	83	79	72	79	80	84	88	80	76	71	70	89	92	89	79	76	75	73	68	57	66	57	52	66	54	52	58	61	
	Minimum	41	50	56	57	54	61	65	67	68	65	57	55	50	54	69	74	71	59	49	49	46	49	40	37	49	38	42	41	39	44	
Enosburg Falls	Maximum	75	83	84	79	80	83	82	86	87	79	76	72	66	90	92	87	78	76	75	75	66	56	67	58	55	64	52	51	55	60	
	Minimum	35	43	50	52	45	56	62	64	63	62	51	53	52	59	72	68	62	43	52	38	50	44	28	49	28	36	38	33	40	26	
Northfield	Maximum	70	84	83	81	78	76	76	83	86	80	81	51	48	46	52	56	55	45	45	49	48	38	31	55	34	34	39	37	39	30	
	Minimum	34	43	49	52	45	59	60	64	61	51	48	46	52	56	55	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	
St. Johnsbury	Maximum	73	83	85	85	80	80	83	85	86	83	78	74	69	87	94	88	85	76	77	76	73	58	69	68	56	61	63	50	54	64	
	Minimum	32	45	51	51	47	57	57	66	63	93	52	47	53	55	68	67	64	48	48	57	46	53	41	31	47	36	38	38	44	36	
Wells	Maximum	68	75	77	78	78	80	78	78	82	80	78	72	76	84	86	85	82	70	72	70	55	60	66	62	60	51	56	58	51	56	
	Minimum	42	50	55	60	58	62	65	64	65	64	56	50	56	62	70	70	70	50	50	48	55	41	37	49	41	49	36	31	84	34	
Massachusetts.																																
Amherst	Maximum	74	81	87	88	84	77	81	85	93	87	88	82	80	92	93	91	86	76	78	80	68	62	69	67	70	68	60	63	66	71	
	Minimum	46	47	53	57	63	64	63	69	69	64	56	56	62	60	70	71	67	61	58	53	52	42	35	45	42	44	42	46	41	35	
Blue Hill	Maximum	59	73	73	82	77	77	77	74	85	83	81	73	71	85	87	88	86	76	67	73	70	58	66	64	63	68	65	60	63	63	
	Minimum	49	50	61	61	60	59	60	64	65	69	61	59	58	55	68	71	69	60	57	58	57	48	45	50	51	52	44	40	42	42	
Boston	Maximum	65	72	76	87	71	74	74	81	87	91	88	71	62	92	94	91	72	68	70	71	62	70	66	58	70	60	63	65	62	74	
	Minimum	51	54	59	64	63	63	61	69	69	72	66	63	60	59	73	76	62	63	60	60	57	50	46	51	52	51	47	44	49	47	
Concord	Maximum	67	75	82	84	79	80	80	82	88	87	86	76	69	92	92	91	90	75	72	76	69	59	67	64	64	69	56	61	64	65	



Scale of Shades.





## Daily Precipitation for September, 1915—Continued from page 69.

Stations.	Watershed.	Day of month.																															Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Rhode Island.																																		
Block Island ***	Coast							.05										.07		.47		.66					.10						1.3	
Bristol	do							.35										T.		.10		1.17			T.		.04						1.3	
Greene	do							.08										.24		.10		.54					.15						2.1	
Hope Valley	do							.17										.23		.21		1.43					.14						3.0	
Kingston	do							.13										.04		.12		2.50					.15						1.7	
Narragansett Pier***	do						T.	.08	.05	.04								.04		.12		1.34					.10						0.8	
Pawtucket	do						T.	.02	.37									.05		.06		.27				.02	.05						0.8	
Providence**	do						T.	.18						T.				.02		.05		.52			.03		.08						0.8	
Wallum Lake	do						.02	.07										.05		.10		.53					.15						0.8	
Connecticut.																																		
Bridgeport	Coast							.01							.05			T.		.71		.87					.09						1.7	
Canton	Connecticut							.02						T.	.10			.18		.03		2.78				.02	.15						3.2	
Colechester	Coast							.23							.02			.02		.11		.50				T.	.10						0.8	
Cream Hill	Housatonic						T.	.02	.01					.35				.82		.19		2.00				.05	.19						3.4	
Danielson	Coast							.03	.04	.28				T.				.10		.25		.30				.05	.25						0.9	
Falls Village	Housatonic							.03	.04	.28								1.32		.15		1.72				.03	.17						3.7	
Hartford **	Connecticut					T.	T.	.10					.12					.06		.06		.91				.01	.03						1.2	
Hawleyville	Housatonic													1.20				.05	.07			1.70					.08						3.3	
Lake Konomocoff	Coast									.37										.10		.57											1.1	
New Haven ***	do					T.	T.	.06	T.					.07				.19		.16		.82				T.	.05						2.4	
New London	do							.14										.21		.09		1.93					.06						1.8	
N. Grosvenor Dale	do						.02	.17	.02									.05		.08		.68					.16						1.1	
Norwalk	do							.05												.82		.94					.09						1.8	
Southington	do							.10	T.					T.				.30	T.	.25		.70					.05						1.4	
Storrs	Coast							.20						T.				.20		.02		1.03				T.	.06						1.8	
Torrington	Housatonic																	.31		.13		.80					.12						1.7	
Volltown	Coast							.23										.19		.10		1.59					.12						2.1	
Wallingford	do							.12					.02	.10				.19		.10		1.59				T.	.10						1.1	
Waterbury	Housatonic								.04					.32				.10				.59												1.1

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations.

T. Precipitation is less than 0.01 inch rain or melted snow.

\*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

\* Precipitation indicated in that of following day.

† Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.

## Comparative Data for New England for September.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.								
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888	57.7	84	18	8.29	14	0	7	8	15	...	sw.	8.9	63	ne.	1902	61.6	95	27	4.49	3.63	12	0	12	6	12	51	ne.	7.9	40	e.	
1889	59.3	93	17	4.11	13	0	8	7	15	...	ne.	10.1	66	ne.	1903	61.0	95	23	1.60	3.65	5	0	19	6	12	4	77	sw.	7.9	60	s.
1890	60.4	86	20	5.40	13	0	10	7	13	...	sw.	8.3	46	sw.	1904	57.9	88	18	5.31	6.05	11	0	12	6	10	59	sw.	8.6	84	nw.	
1891	63.8	92	30	2.28	10	0	13	10	7	...	sw.	7.6	48	ne.	1905	58.9	89	22	5.41	5.19	10	0	13	6	11	58	nw.	7.5	48	nw.	
1892	58.5	85	27	2.24	7	0	18	7	6	...	sw.	9.0	52	sw.	1906	61.8	97	24	2.35	2.41	7	0	13	6	5	69	sw.	8.7	50	nw.	
1893	56.1	86	26	2.38	12	0	11	9	10	...	nw.	9.5	58	s.	1907	60.8	91	23	7.75	4.62	13	0	8	6	14	41	sw.	8.5	58	s.	
1894	62.6	92	22	3.46	4.50	9	0	9	12	52	sw.	9.1	60	ne.	1908	62.5	95	23	1.09	2.10	3	0	19	6	5	64	sw.	8.3	53	ne.	
1895	62.8	100	24	2.45	2.16	8	0	14	10	6	65	sw.	9.2	64	nw.	1909	59.8	86	25	5.02	4.87	10	0	12	7	11	50	sw.	8.2	54	ne.
1896	59.0	96	24	6.16	8.31	13	0	9	8	13	46	sw.	11.4	75	no.	1910	59.8	85	26	2.85	2.84	10	0	13	7	9	54	nw.	9.3	48	ne.
1897	59.4	97	25	2.19	2.56	7	0	16	8	6	63	nw.	12.3	64	nw.	1911	59.1	88	21	3.34	1.72	11	0	12	9	9	54	sw.	8.8	44	ne.
1898	62.6	95	25	2.95	2.95	8	0	15	8	7	60	sw.	8.6	55	no.	1912	59.2	92	25	3.29	2.43	10	0	10	9	11	47	nw.	9.3	51	s.
1899	58.9	88	23	4.68	6.50	10	0	14	7	9	51	sw.	10.0	51	e.	1913	58.6	93	19	3.25	4.02	8	0	16	6	8	79	sw.	8.8	48	ne.
1900	62.6	99	25	2.98	3.12	8	0	15	8	8	62	nw.	8.3	65	sw.	1914	60.2	97	18	0.98	1.70	5	0	17	7	6	71	nw.	9.8	51	s.
1901	61.6	94	29	3.31	3.48	10	0	16	5	9	61	sw.	7.8	69	s.	1915	63.4	96	25	1.79	2.78	6	0	17	7	6	63	nw.	9.4	62	nw.



U. S. DEPARTMENT OF AGRICULTURE

WEATHER BUREAU

CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

NEW ENGLAND SECTION

OCTOBER, 1915

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BY

JOHN W. SMITH

DISTRICT FORECASTER AND SECTION DIRECTOR

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
NOVEMBER 19, 1915



Departure of the Mean Temperature from the Normal, October, 1915.



Shaded portions show excess (+).  
Unshaded portions show deficiency (-).  
Lines show amount of excess or deficiency.



## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, District Forecaster and Section Director.

VOL. XXVII. BOSTON, MASS., OCTOBER, 1915. No. 10.

## GENERAL SUMMARY.

The weather during the month was generally mild for the season with no severe storms or marked extremes in any condition. The average temperature, although lower than that of any other month for several years, was above the normal. In the central and northern portions of the section the first general killing frost of the season did not occur until the 10th, and in the remainder of the section until the last of the month. The precipitation was below the normal except at a few scattered stations, the greatest average deficiency being in Maine, and the least in Vermont and Rhode Island. The greater portion of the precipitation was in the first decade, only light to moderate amounts occurring at anytime during the remainder of the month. Snow fell sufficient to whiten the mountains in the interior of the northern states on the 29th, but at none of the reporting stations was more than a trace recorded. Springs and streams continued in a moderate to low stage throughout the month. The mild and pleasant weather was very favorable for harvesting and all other outdoor work.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 15 stations reporting, was 30.08 inches, which was .04 inch above the normal for the month. The highest monthly mean was 30.09 inches, at a number of stations; the lowest, 30.04 inches, at Westport and Portland, Me. The highest recorded was 30.48 inches, at Portland, Me., on the 16th; the lowest, 29.26 inches, at Eastport, Me., on the 30th. The monthly range for the section was 1.22 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 15 stations, was 51.3°, which was 1.3° below the mean for October, 1914, and the lowest for the month since 1911. During the past 27 years the average temperature for October has been lower in 20 and higher in 7 years than the average for the month of the present year. The highest average October temperature during this period was 54.3°, in 1913; the lowest, 44.2°, in 1888. The average temperature of the several states of the section, was as follows: Maine, 49.2°; New Hampshire, 49.7°; Vermont, 49.1°; Massachusetts, 53.2°; Rhode Island, 53.1°; Connecticut, 53.1°. The average temperature for the section was 2.2° below the normal. The departures from the normal for the several states were as follows: Maine, +2.5°; New Hampshire, +1.1°; Vermont, +2.7°; Massachusetts, +2.8°; Rhode Island, +2.2°; Connecticut, +1.9°. The highest monthly mean was 53.0°, at Westboro, Mass.; the lowest, 45.1°, at Van Buren, N. H. The highest recorded was 82°, at Plymouth, Mass., on the 1st; the lowest, 18°, at Chelsea, Vt., on the 25th. The greatest local monthly range was 61°, at Woodstock, Vt.; the least, 31°, at Block Island and Bristol, R. I. The greatest daily range was 52°, at Patten, Me., on the 2d.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 14 stations reporting, was 80 per cent, which was 1 per cent above the normal for the month. The highest monthly average was 86 per cent, at Concord, N. H.; the lowest, 69 per cent, at Fall River, Mass.

## PRECIPITATION.

The average for the section, as shown by the records of 83 stations, was 2.77 inches, which was 0.56 inch above the average of October, 1914. During the past 27 years the average October precipitation has been less in 8 and greater in 19 years than the average for the month of the present year. The greatest average for any October in this period was 7.34 inches, in 1890; the least, 1.10 inches, in 1897. The averages for the several states of the section were as follows: Maine, 2.45 inches; New Hampshire, 2.43; Vermont, 2.47; Massachusetts, 3.11; Rhode Island, 3.51; Connecticut, 2.91. The average precipitation for the section was 0.79 inch below the normal. The departures from the normal for the several states were as follows: Maine, -1.06 inches; New Hampshire, -0.76; Vermont, -0.53; Massachusetts, -0.65; Rhode Island, -0.41; Connecticut, -0.98. The greatest monthly amount was 5.18 inches, at Block Island, R. I.; the least, 1.48, at St. Johnsbury, Vt. The greatest amount in any 24 hours was 2.10 inches, at Block Island, R. I., on the 19th and 20th. The average number of days with .01 inch or more of precipitation was 9, the normal number for the month.

## WIND.

The prevailing direction of the wind was from the southwest, the normal direction for the month, as determined from the records of the past 28 years, is from the northwest. The average monthly wind movement for the section, 15 stations reporting, was 7,606 miles. The average hourly velocity was 10.2 miles, which was 0.9 mile above the average for October, 1914, and 0.2 below the normal for the month, as determined from the records of the past 28 years. The greatest monthly wind movement was 13,500 miles, at Blue Hill Observatory, Hyde Park, Mass.; the least, 3,569 miles, at Concord, N. H. The highest velocity recorded was 60 miles per hour from the northeast, at Nantucket, Mass., on the 2d. This is about the usual maximum velocity for the month.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 13; partly cloudy, 7; cloudy, 11. The normal for the month, as determined from the records of the past 28 years, is 12 clear, 8 partly cloudy, and 11 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 50, which was 4 per cent below the normal for the month, and 4 per cent below the average for October, 1914. The greatest percentage of possible sunshine in any October since the beginning of the automatic records in 1894, was 69, in 1905; the least, 29, in 1913. The greatest percentage of possible sunshine was 58, at Boston, Mass.; the least, 28, Northfield, Vt.

## DATES OF MISCELLANEOUS PHENOMENA.

*Thunderstorms* (dates and number of observers reporting on each): Maine—26th, 1; 29th, 1; 30th, 1. New Hampshire—26th, 1; 29th, 1. Vermont—None. Massachusetts—27th, 1. Rhode Island—30th, 1. Connecticut: 26th, 2.

*Halos, Lunar.*—Bethlehem, N. H., Northfield, Vt., and Northwalk, Conn., 25; Woodstock, Vt., and Nantucket, Mass., 18, 26; Block Island, R. I., 26; Hartford, Conn., 1; New Haven, Conn., 1, 25.

*Halos, Solar.*—Bethlehem, N. H., and Somerset, Mass., 1; Northfield, Vt., and Boston, Mass., 1, 17; Woodstock, Vt., 1, 18; New Haven, Conn., 7, 19.

*Auroras.*—Eastport, Me., 15, 24, 31; Howe Brook, Me., and Bethlehem, N. H., 15; North Bridgton, Me., 15, 24; Presque Isle, Me., 20; Franklin, N. H., 28; Enosburg Falls, Vt., 16, 17; Northfield, Vt., 15, 24; Blue Hill, Mass., 24; Rockport, Mass., and Hartford, Conn., 23.



## Climatological Data for October, 1915.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				No. of days—					Observer.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.	Cloudy.		Prevailing direction of wind.
Maine.																				
Bar Harbor	Hancock	20	29	50.6	+2.6	72	13	28	11	34	2.35	-1.72	1.30	T.	4	15	7	9	sw.	William Miller.
Cornish	York	778	60	51.1	+3.6	80	21	25	11	43	3.50	-0.40	1.22	0	7	11	8	12	sw.	T. H. West.
Eastport	Washington	53	43	48.6	+2.0	67	17	32	23	23	1.86	-2.02	0.78	0	9	10	10	11	s.	U. S. Weather Bureau.
Fairfield	Somerset	90	30	52.2	+5.1	72	15	30	25	30	2.50	-0.15	0.81	0	5	20	7	4	.....	E. F. Parker.
Farmington	Franklin	450	18	47.7	+0.1	75	14	21	25	39	2.32	-0.89	0.48	T.	10	9	12	10	nw.	State Normal School.
Gardiner	Kennebec	163	23	.....	.....	.....	.....	.....	.....	.....	.....	-1.02	0.96	0	9	17	2	12	w.	Samuel D. Soule.
Greenville	Piscataquis	1,140	11	46.7	.....	75	13	25	33	36	1.83	-1.53	0.27	0	13	.....	.....	.....	.....	U. S. Weather Bureau.
Houlton	Aroostook	362	33	50.8	.....	70	22	26	25	37	1.52	-1.32	1.43	0	2	18	4	9	.....	Bangor & Aroostook L.
Lewiston	Androscoggin	185	32	50.0	+2.8	75	13	28	25	32	2.83	-0.85	0.81	0	9	12	10	9	nw.	Union Water Power Co.
Madison	Somerset	257	12	47.6	.....	75	15	23	25	36	2.46	-1.77	0.60	0	9	16	4	11	w.	William Jardine.
Millinocket	Penobscot	386	12	47.3	.....	74	13	28	7	38	2.08	-1.63	0.65	0	9	11	3	17	s.	Great Northern Paper Co.
North Bridgton	Cumberland	450	22	51.2	+2.1	78	13	27	25	37	2.15	-1.12	0.47	T.	8	15	5	11	w.	C. L. Chadbourne.
Orono	Penobscot	129	46	50.8	+4.6	76	13	27	25	41	2.62	-1.40	0.98	0	7	19 <sup>a</sup>	4 <sup>a</sup>	7 <sup>a</sup>	sw.	Department of Physic
Patten	do	550	13	47.1 <sup>a</sup>	.....	80 <sup>a</sup>	2	22 <sup>a</sup>	33	52	4.20	+0.09	1.00	0	6	11 <sup>a</sup>	2 <sup>a</sup>	13 <sup>a</sup>	ne.	Bangor & Aroostook L.
Portland	Cumberland	99	44	51.2	+2.1	73	12	33	11	31	1.49	-1.05	0.55	0	10	15	2	14	s.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	6	45.8	.....	75	13	22	25	40	1.75	-1.47	1.10	T.	4	16	6	9	.....	E. M. Libby.
Rumford	Oxford	505	22	48.2	+2.5	72	13	31	25	36	1.79	-1.31	0.46	0	8	19	3	9	nw.	Charles A. Mixer.
Schoodic	Piscataquis	300	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	.....	.....	.....	.....	.....	R. H. Cable.
Van Buren	Aroostook	510	11	45.1	.....	74	13	23	11	38	2.44	-1.05	0.64	0	9	9	6	16	sw.	J. M. Thomas.
Winslow	Kennebec	90	20	51.0	+3.3	76	13	24	25	39	3.15	+0.01	0.99	0	6	17	6	8	sw.	Hollingsworth & White.
New Hampshire.																				
Alstead Center	Cheshire	1,120	11	49.0	+0.7	69	21	28	25	26	2.85	-0.23	0.68	0	12	16	4	11	nw.	Frank Dewing.
Bethlehem	Grafton	1,470	23	47.0	+0.8	72	14	23	25	30	1.73	-1.27	0.36	T.	12	12	6	13	w.	Benjamin Tucker.
Concord	Merrimac	350	55	50.3	+1.6	76	21	24	25	39	3.02	-0.40	0.98	T.	9	13	4	14	nw.	U. S. Weather Bureau.
Durham	Stafford	88	20	50.3	+1.2	74	21	25	25	35	1.84	-1.36	0.77	0	7	14	7	10	nw.	Agr. Exp. Station.
Franklin	Merrimac	440	16	50.6	+2.8	78	13	23	25	44	2.83	-0.24	1.03	0	13	12	7	12	w.	Dr. C. P. Webster.
Glencliff	Grafton	1,650	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	State Sanatorium.
Grafton	do	863	29	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	P. R. Kimball.
Hanover	do	603	81	50.0	+3.6	74	12	22	25	38	1.82	-1.32	0.43	T.	13	13	7	14	sw.	Dartmouth College.
Keene	Cheshire	506	30	50.1	-2.5	75	21	21	25	38	2.71	-0.19	0.70	0	10	11	8	12	nw.	Samuel Wadsworth.
Nashua	Hillsboro	125	30	52.2	+3.3	77	13	25	25	39	2.66	-0.62	0.85	0	7	10	11	10	se.	C. B. Stevens.
Newton	Rockingham	126	27	50.1	+1.7	74	13	23	25	37	2.57	-1.03	1.15	0	6	14	11	6	sw.	W. C. Gale.
Plymouth	Grafton	500	27	47.8	+3.1	73	13	22	25	40	2.30	-0.93	0.62	0	8	12	2	17	w.	Hattie G. Trow.
Vermont.																				
Bloomfield	Essex	404	8	47.2	.....	73	13	22	25	41	2.29	-0.48	0.46	0	13	12	3	16	s.	Lyman Falls Power Co.
Burlington	Chittenden	404	8	50.3	+3.4	71	13	27	25	30	2.74	-0.57	1.02	T.	11	5	10	16	s.	U. S. Weather Bureau.
Cavendish	Windsor	910	12	48.1	.....	74	21	20	24	42	2.78	-0.42	0.68	0	11	15	5	11	.....	Colonial Power Co.
Chelsea	Orange	840	20	47.8	+2.6	72	13	18	25	43	1.52	-1.07	0.54	0	9	12	4	15	s.	W. F. Dewey.
Cornwall	Addison	517	22	51.4	+1.7	72	13	25	25	30	2.51	-0.07	0.70	0	8	9	10	12	s.	C. H. Lane.
Enosburg Falls	Franklin	601	24	49.1	+1.8	75	13	20	25	42	3.43	+0.33	1.16	T.	11	10	14	7	nw.	J. W. Pomeroy.
Hyde Park	Lamoille	576	3	49.7 <sup>a</sup>	.....	77 <sup>a</sup>	13	20 <sup>a</sup>	25	45 <sup>a</sup>	2.79	.....	1.25	0	7	9 <sup>a</sup>	3 <sup>a</sup>	16 <sup>a</sup>	.....	A. V. Wiswell.
Northfield	Washington	876	29	47.3	+3.7	74	13	20	25	37	1.72	-0.84	0.49	T.	12	6	10	15	s.	U. S. Weather Bureau.
Somerset	Windham	2,096	4	47.4	.....	77	10	26	23	26	2.92	.....	0.82	0	11	7	13	11	nw.	Power Construction Co.
St. Johnsbury	Caledonia	711	22	49.8	+3.4	75	13	23	25	41	1.48	-1.09	0.48	0	11	9	9	13	s.	Fairbanks Museum.
Vernon	Windham	310	24	51.9	+2.7	74	13	26	25	35	2.20	-1.36	0.55	0	7	7	14	10	nw.	Conn. River Power Co.
Wells	Rutland	750	24	48.4	+0.4	68	14	24	25	27	3.37	+0.41	1.29	0	9	8	11	12	s.	E. R. Pember.
Woodstock	Windsor	700	23	50.2	+4.4	81	14	20	25	40	2.61	-0.70	0.83	T.	8	11	4	16	.....	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	26	52.8	+3.8	76	13	26	25	39	2.89	-0.61	0.88	0	7	12	6	13	nw.	Agr. Exp. Station.
Blue Hill	Norfolk	640	31	52.2	+2.7	72	13	31	25	25	3.11	-1.05	1.24	0	10	13	6	12	sw.	Blue Hill Observatory.
Boston	Suffolk	124	45	55.7	+3.4	78	13	37	25	26	2.82	-0.79	1.00	0	9	12	6	13	sw.	U. S. Weather Bureau.
Chestnut Hill	do	124	35	55.4	+3.7	76	13	31	11	32	2.90	-1.04	1.17	0	8	23	0	8	.....	Met. Water Board.
Clinton	Worcester	370	19	52.4	.....	71	13	30	24	30	3.42	.....	1.02	0	6	.....	.....	.....	.....	Do.
Concord	Middlesex	139	25	50.8	+1.4	75	13	24	25	35	3.05	-0.40	1.18	0	8	12	9	10	nw.	Fred A. Tower.
Fall River	Bristol	200	49	50.8	-0.8	74	14	34	25	21	3.62	-0.44	0.87	0	12	14	9	8	ne	C. V. S. Remington.
Fitchburg	Worcester	550	32	52.3	+3.2	75	13	28	25	32	2.68	-1.11	0.80	0	7	15	9	7	nw.	Dr. A. P. Mason.
Framingham	Middlesex	160	35	52.9	+2.7	75	13	27	25	36	2.99	-0.82	1.13	0	8	.....	.....	.....	.....	Met. Water Board.
Hyannis	Barnstable	31	24	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	8	.....	.....	.....	.....	C. F. Sleeper.
Lawrence	Essex	51	31	52.1	+2.1	74	21	30	25	31	3.10	-0.35	1.27	0	8	10	16	5	s.	Essex Company.
Lowell	Middlesex	100	30	54.0	+4.1	72	17	30	25	31	2.96	-0.53	1.10	0	6	.....	.....	.....	.....	Props. Locks & Canal.
Middleboro	Plymouth	53	29	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	10	9	9	13	sw.	Ralph Sampson.
Nantucket	Nantucket	47	29	54.8	+0.3	72	14	40	24	22	3.18	-0.36	0.91	0	10	9	9	13	sw.	U. S. Weather Bureau.
New Bedford	Bristol	88	103	52.6	.....	77	17	19	25	42	2.63	-1.02	1.42	0	4	21	1	9	nw.	City Engineer.
Norfolk	Norfolk	244	12	51.4	.....	82	15	29	24	41	3.61	-0.57	0.97	0	7	19	2	10	sw.	Ruby H. Martyn.
Plymouth	Plymouth	50	30	51.4	.....	67	14	37	25	22	4.98	+1.07	1.40	0	9	16	7	8	sw.	L. B. Knapp.
Provincetown	Barnstable	40	28	53.2	+0.6	74	13	35	25	26	3.35	.....	1.01	0	9	15	7	9	sw.	Gideon Bowley.
Rockport	Essex	25	13	54.0	.....	71	13	31	23	28	2.92	.....	0.74	0	8	19	4	8	sw.	C. F. P. Bearse.
Rutland	Worcester	1,160	13	50.1 <sup>a</sup>	.....	71 <sup>a</sup>	13	31	23	28	2.92	.....	0.74	0	8	19	4	8	sw.	



## Daily Precipitation for October, 1915.

Continued on page 72

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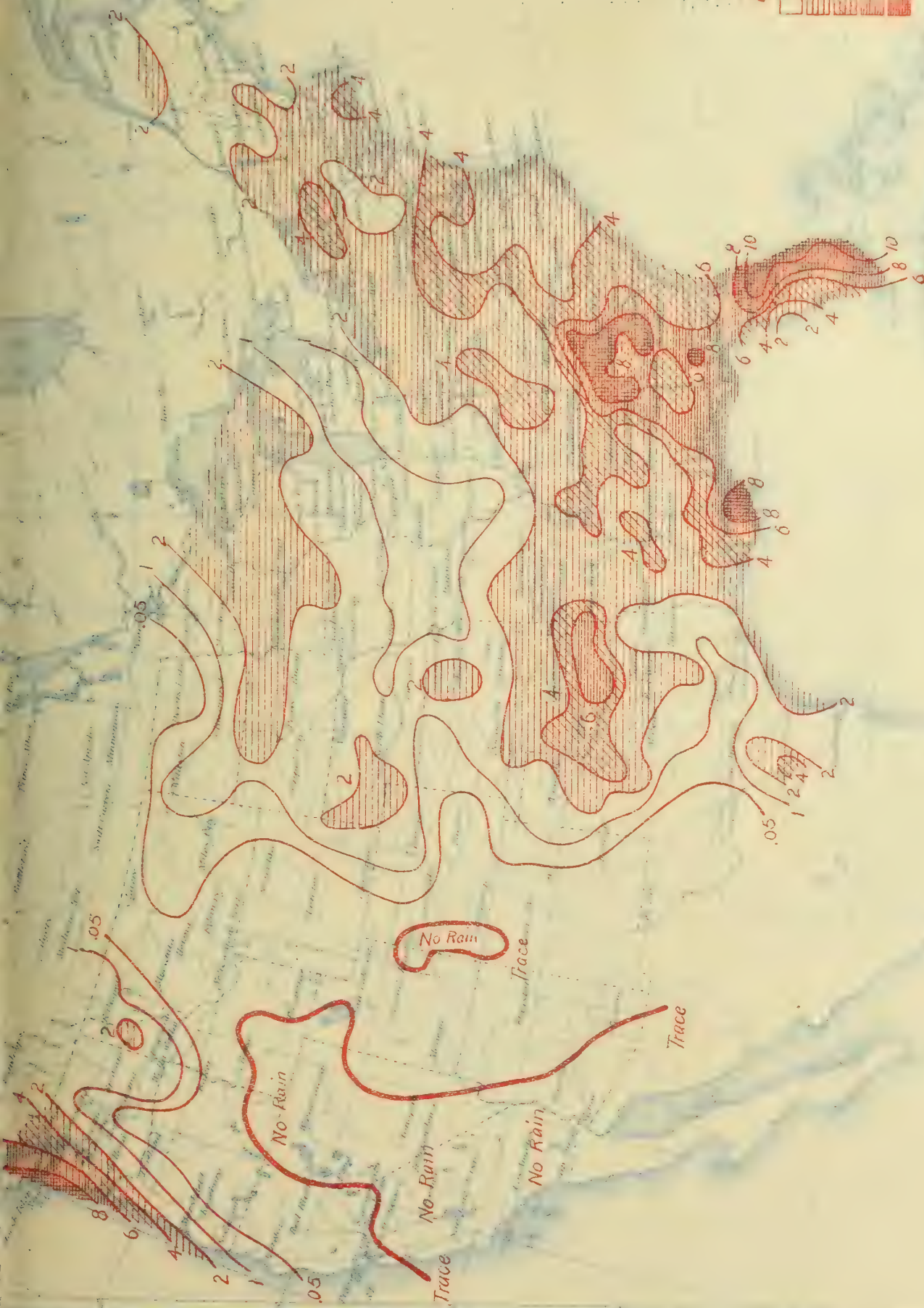
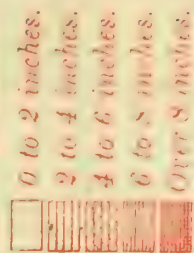


## Daily Temperatures for October, 1915.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean	
Maine.																																	
Bar Harbor	Maximum	62	52	56	58	60	58	60	55	56	55	54	68	72	70	70	65	68	54	63	62	70	60	58	50	56	64	60	69	60	66	60	
	Minimum	35	34	41	35	42	36	34	40	43	35	28	48	47	52	43	40	34	30	43	56	56	40	40	39	39	40	52	40	45	42	44	
Cornish	Maximum	67	50	57	70	62	59	60	58	58	60	61	74	79	78	62	66	75	69	71	67	80	65	51	60	63	66	70	64	51	56	61	
	Minimum	31	43	40	33	43	41	46	44	37	31	25	34	36	46	43	32	55	32	48	53	50	35	35	31	25	27	44	28	44	44	38	
Eastport	Maximum	57	49	49	60	55	56	54	54	53	50	51	66	57	66	58	51	67	54	62	55	56	56	41	47	50	52	55	52	50	53	52	
	Minimum	42	44	44	43	46	45	41	49	46	35	33	46	47	50	48	42	44	43	49	51	48	40	32	36	33	40	46	40	40	43	38	
Greenville	Maximum	58	50	57	66	57	54	54	53	51	49	53	67	73	74	62	62	61	54	60	69	49	38	41	52	48	58	51	47	53	44	56	
	Minimum	38	36	39	37	41	44	36	41	41	36	30	38	39	39	72	65	63	65	62	58	59	67	58	44	48	54	52	62	55	52	50	
Millinocket	Maximum	61	52	60	68	54	57	59	51	53	52	55	68	74	72	65	63	65	62	58	59	67	58	44	48	54	52	62	55	52	50	56	
	Minimum	33	33	41	31	37	41	28	40	42	30	30	40	36	36	75	69	63	69	70	66	65	66	66	50	56	56	65	59	52	53	62	
Orono	Maximum	68	63	56	70	68	59	61	63	52	54	57	70	76	75	69	63	69	70	66	65	66	66	50	56	56	65	65	59	52	58	62	
	Minimum	36	35	41	29	43	47	30	44	44	32	28	41	38	49	67	68	66	57	72	56	64	62	72	60	44	50	52	56	54	54	55	
Portland	Maximum	61	51	54	65	59	59	55	54	56	55	52	73	67	68	66	57	72	56	64	62	72	60	44	50	52	56	66	54	54	54	55	
	Minimum	43	43	42	43	49	50	47	45	46	38	33	43	46	52	45	40	41	44	50	56	54	42	35	37	34	40	45	38	52	49	35	
Presque Isle	Maximum	60	56	60	65	61	62	62	60	61	57	59	60	75	72	64	62	60	60	53	62	58	62	50	44	52	49	52	58	53	49	65	
	Minimum	29	25	29	28	38	37	25	30	35	26	33	23	35	38	41	42	40	36	41	37	51	51	47	37	34	38	31	32	42	34	34	
Rumford	Maximum	62	48	51	64	56	57	54	56	54	51	54	70	72	72	61	62	66	61	65	63	70	54	40	43	52	54	58	54	47	50	46	
	Minimum	36	43	40	39	45	42	44	46	36	36	32	34	41	42	40	36	41	37	51	51	47	37	34	38	31	32	42	34	34	34	38	
Van Buren	Maximum	60	53	59	65	57	56	57	48	54	50	49	60	74	71	62	61	59	58	52	62	64	52	38	29	43	40	50	55	58	52	49	54
	Minimum	26	26	37	28	38	42	26	40	43	32	23	35	31	34	31	24	33	23	44	51	53	52	32	24	34	45	26	34	43	34	34	
New Hampshire.																																	
Alstead Center	Maximum	56	54	48	60	62	55	54	55	49	40	54	67	63	67	64	65	65	63	60	64	69	62	47	44	48	58	51	32	53	53	49	
	Minimum	39	42	41	37	49	44	45	43	38	38	30	41	45	53	52	34	44	43	49	55	52	42	31	32	28	35	42	33	41	41	38	
Bethlehem	Maximum	60	49	48	61	58	54	53	53	49	53	54	67	64	61	63	64	66	62	64	61	61	41	37	48	55	57	54	57	49	45	45	
	Minimum	33	41	38	33	48	40	43	41	35	32	25	37	42	56	51	41	40	36	51	48	48	38	27	31	23	35	39	33	39	37	34	
Concord	Maximum	62	50	56	68	64	59	55	55	56	56	61	74	76	73	67	63	70	63	55	37	49	54	50	42	36	32	24	34	39	38	44	
	Minimum	34	42	40	33	50	44	53	46	32	29	27	37	37	53	49	43	35	37	49	54	50	42	36	32	24	34	39	38	44	39	39	
Franklin	Maximum	65	51	53	63	60	53	55	57	55	62	76	78	71	68	66	71	70	68	63	76	66	50	43	36	23	29	44	29	35	44	40	
	Minimum	34	43	42	45	42	44	44	40	29	27	32	36	38	49	55	43	35	36	50	54	51	37	34	36	23	29	44	29	35	44	40	
Hanover	Maximum	64	49	53	67	64	56	56	60	57	54	60	74	74	70	64	67	69	67	62	65	72	57	49	47	52	59	60	59	60	52	54	
	Minimum	32	42	42	36	48	38	45	44	36	29	28	36	36	51	51	44	38	36	53	55	55	34	33	36	22	30	43	30	37	42	36	
Nashua	Maximum	64	53	57	69	66	64	57	55	57	59	63	75	77	74	69	63	74	69	70	64	77	67	50	51	58	67	70	62	63	56	57	
	Minimum	33	47	42	33	45	47	38	46	46	30	27	40	40	48	54	45	35	37	47	57	50	38	34	34	25	32	51	30	35	45	31	
Plymouth	Maximum	61	50	54	62	56	59	63	55	54	52	57	71	73	70	62	65	66	63	63	64	72	63	50	44	52	51	59	55	49	48	50	
	Minimum	32	43	48	31	40	40	46	44	38	28	24	31	33	38	55	42	33	33	47	52	50	33	33	36	22	25	46	27	32	43	40	
Vermont.																																	
Burlington	Maximum	62	54	51	65	66	54	59	61	55	49	56	67	71	70	62	60	63	69	59	66	65	54	41	43	51	54	55	54	49	53	51	
	Minimum	36	45	38	35	54	49	46	46	38	32	27	50	52	59	41	35	42	54	57	50	38	32	31	27	46	46	40	49	49	40	40	
Fenosburg Falls	Maximum	65	51	57	69	71	66	60	62	55	47	55	70	75	73	63	60	66	68	62	69	68	52	44	40	53	51	57	60	54	59	54	
	Minimum	26	43	42	27	50	48	44	47	33	29	21	48	37	58	46	29	33	25	53	53	31	33	28	34	20	30	43	40	43	39	34	
Northfield	Maximum	58	47	50	64	62	53	55	59	53	49	58	72	74	72	60	64	64	63	56	66	68	53	38	42	52	58	58	55	61	47	50	
	Minimum	29	43	35	32	57	40	44	45	30	27	21	45	89	57	38	37	62	63	56	66	68	53	38	30	26	20	37	38	29	44	39	
St. Johnsbury	Maximum	64	58	55	67	62	59	57	59	57	51	57	72	75	72	68	66	69	67	61	62	73	59	53	42	53	58	59	56	59	56	51	
	Minimum	33	41	42	33	49	41	45	44	40	30	25	45	64	50	40	39	34	35	53	49	50	36	32	35	23	30	46	35	37	41	37	
Wells	Maximum	60	52	58	60	64	55	58	58	52	48	54	64	65	68	62	60	58	64	60	64	64	52	48	42	44	58	55	58	55	51	54	
	Minimum	37	42	42	35	48	43	45	50	34	37	27	39	45	54	45	41	40	54	54	50	37	29	32	24	32	45	32	38	42	34	44	
Massachusetts.																																	
Amburst	Maximum	61	49	54	68	66	62	62	59	58	59	61	73	76	76	75	76	70	67	64	74	59	45	53	56	64	67	62	62	55	59	54	
	Minimum	37	45	38	35	51	43	38	47	38	37	28	44	49	54	56	47	37	42	51	59	48	42	34	33	26	39	41	32				



Scale of Shades.





## Daily Precipitation for October, 1915—Continued from page 77.

Stations.	Watershed.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
<i>Rhode Island.</i>																																	
Block Island***	Coast	.08	1.20	.01		.28	.15	.40	.20							.75				.31	1.79							.01					5.18
Bristol	do	T.	T.			.38	.22	.40	.53							.52					.34									.01			2.00
Greene	do																																3.19
Hope Valley	do	.42			1.12	.14	T.	.60								.37	.29			T.						.35							3.84
Kingston	do	.97		.66	.40	.15	.44	.50								.43				.51	.25								.03	.01		4.65	
Narragsett Pier***	do	T.	.97	.04	.65	.33	.08	.50		T.						.65				.52	.90							T.				2.17	
Pawtucket	do	.69			.63		.66									.01				.01	.03							.15				1.86	
Providence**	do	.01	.44	.01	.75	.01	.13	.37		T.						.04				.01	.01	.01					.02	.05		T.		3.21	
Wallum Lake	do			1.25	.77			.80								.07						.07						.25					
<i>Connecticut.</i>																																	
Bridgeport	Coast	.27	.60			.67	.01	.05	.90							.10	.29				.06	.08						.50		T.		3.53	
Canton	Connecticut	T.	.93			.37		.83								.13	T.				.28						.29					2.88	
Colchester	Coast		1.20			.68	.25	T.	.97							.19				T.								.40		T.		3.69	
Cream Hill	Housatonic	.03	.40			.26		.10	.44							.05		.02			.66						.28					2.24	
Danielson	Coast			.80	1.30			.50								.10					.05											2.75	
Falls Village	Housatonic	.11	.28		.34		.20	.32								.01	.05	T.		.06	.34						.25					1.96	
Hartford**	Connecticut	.12	1.31		.15		.41	.51								.04	.01				.06						.11	.02		T.		2.74	
Hawleyville	Housatonic		.56		.23			.46					.66								.21											2.12	
Lake Konomocoff	Coast		.95		.45	.90		.85								.51														.25	.09	4.00	
New Haven***	do	.25	.62		.79	T.	.35	.68								.10	.06	T.		T.	.04	.04					.29	.08		T.		3.80	
New London	do		.80		.14		.40	.75								.10				.01	.11									.10		3.27	
N. Grosvenor Dale	do		1.20	.03	.61			.68								.05					.06							.11				2.74	
Norwalk	do		.94		.82			.80								.17					.17							.58				3.48	
Southington	do	T.	1.10	T.	.20	T.		1.20								T.					T.	.08						.15				2.70	
Storrs	Coast		1.06		.48	.11		.81								.03					.06							.16				2.71	
Torrington	Housatonic																																
Volumtown	Coast		.72			.98		.77								.26						.06	.03					.15			.05	3.02	
Wallingford	do	.60			.95											.11				.10							.25					2.01	
Waterbury	Housatonic		.85		.28		T.	.95								.05					.18						.24					2.55	

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations.

T. Precipitation is less than 0.01 inch rain or melted snow.

II Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Asnburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.

## Comparative Data for New England for October.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.										
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.		
1888....	44.2	74	8	5.39	.....	14	0	8	8	15	.....	nw.	10.5	52	e.	1902....	49.4	79	14	4.97	3.40	9	T.	12	9	10	53	sw.	10.3	72	sw.		
1889....	46.1	80	6	4.53	.....	12	0	8	9	14	.....	ne.	11.0	78	ne.	1903....	50.1	79	10	3.63	4.83	10	T.	12	7	12	58	nw.	11.5	62	ne.		
1890....	47.7	84	12	7.34	.....	16	0	6	10	15	.....	nw.	10.4	78	ne.	1904....	45.4	81	11	2.25	2.40	8	T.	14	7	10	54	nw.	10.0	83	s.		
1891....	48.1	91	10	3.42	.....	10	0	9	10	12	.....	nw.	11.5	72	ne.	1905....	49.3	85	10	1.65	1.90	5	T.	0	18	7	6	69	w.	8.7	60	w.	
1892....	44.6	84	20	1.50	.....	8	0	12	10	9	.....	sw.	10.0	47	nw.	1906....	50.1	80	15	4.30	5.19	8	T.	11	8	12	48	ne.	9.7	60	ne.		
1893....	51.6	88	11	4.01	.....	7	0	12	11	7	.....	nw.	9.9	63	sw.	1907....	45.3	78	10	4.66	3.22	8		0	15	7	9	58	nw.	10.1	66	s.	
1894....	52.2	80	23	4.96	.....	3.70	13	0	10	8	13	59	sw.	12.0	84	e.	1908....	52.1	93	14	2.94	3.54	7		0	17	5	9	55	nw.	9.1	56	n.
1895....	45.2	77	9	5.03	.....	5.92	8	T.	12	11	8	55	nw.	12.0	61	e.	1909....	48.6	92	13	1.60	1.65	8		0	12	10	9	51	nw.	9.6	50	nw.
1896....	46.6	78	12	3.53	.....	3.03	13	0	8	7	16	33	ne.	12.6	78	ne.	1910....	50.9	89	10	1.65	3.86	8		0	15	7	9	51	nw.	11.7	54	sw.
1897....	59.1	91	12	1.10	.....	1.75	4	0	19	7	6	68	nw.	11.5	60	ne.	1911....	48.6	78	15	4.04	6.64	11		0	13	6	12	46	nw.	9.6	58	ne.
1898....	51.1	91	18	6.53	.....	3.80	11	0	11	8	12	42	nw.	10.4	60	e.	1912....	51.9	89	19	2.91	4.88	8		0	17	6	8	57	sw.	10.6	60	ne.
1899....	51.2	84	14	2.01	.....	2.50	7	0	11	8	12	53	nw.	9.1	57	ne.	1913....	54.3	87	20	6.69	3.61	13		0	7	6	18	29	n.	11.3	65	s.
1900....	53.9	85	15	3.65	.....	5.75	10	0	11	8	12	55	ne.	9.9	66	nw.	1914....	52.6	87	8	2.21	3.27	5	T.	14	8	9	54	sw.	9.3	53	nw.	
1901....	49.8	82	15	2.98	.....	4.89	6	0	17	7	7	58	sw.	9.8	52	w.	1915....	51.8	82	18	2.77	2.10	9		0	13	7	11	50	sw.	10.2	60	ne.



U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

NEW ENGLAND SECTION

NOVEMBER, 1915

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BY  
JOHN W. SMITH  
DISTRICT FORECASTER AND SECTION DIRECTOR

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
DECEMBER 17, 1915



Departure of the Mean Temperature from the Normal, November, 1915.



Shaded portions show excess (+).  
Unshaded portions show deficiency (-).  
Lines show amount of excess or deficiency.



## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, District Forecaster and Section Director.

L. XXVII. BOSTON, MASS., NOVEMBER, 1915. No. 11.

## GENERAL SUMMARY.

Generally mild and pleasant weather for the season, as in the preceding two months, continued to prevail through November, making conditions exceptionally favorable for agricultural operations and other outside work. At no time was there any considerable amount of frost in the ground, plowing being done in the northern portion of the section as late as the end of the month. The only heavy snowfall was on the 15th, and was confined to the interior of Maine and northern New Hampshire, where there was from 3 to 8 inches. This gradually melted, and by the close of the month little or none remained except in the mountains. From 1 to 2 inches also fell in the northern portions of the section on the 5th, but which soon melted. The springs and streams continued moderately low throughout the month.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 15 stations reporting, was 29.98 inches, which was .07 inch below the normal for the month. The highest monthly mean was 30.02 inches, at Hartford, Conn.; the lowest, 29.90 inches, at Eastport, Me. The highest recorded was 30.58 inches, at Northfield, Vt., on the 18th; the lowest, 28.76 inches, at Eastport, Me., on the 15th. The monthly range for the section was 1.82 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 15 stations, was 39.6°, which was 2.9° above the mean for November, 1914. During the past 27 years the average temperature for November has been lower in 19 and higher in 7 years than the average for the month in the present year, and the same in the past. The highest average November temperature during the period was 42.0°, in 1896; the lowest, 32.5°, in 1904. The average temperature of the several states of the section, was as follows: Maine, 36.9°; New Hampshire, 38.0°; Vermont, 38.0°; Massachusetts, 42.2°; Rhode Island, 43.0°; Connecticut, 42.0°. The average temperature for the section was 2.3° above the normal. The departures from the normal for the several states were as follows: Maine, +2.6°; New Hampshire, +2.6°; Vermont, +2.6°; Massachusetts, +2.3°; Rhode Island, +3.0°; Connecticut, +2.5°. The highest monthly mean was 73°, at New London, Conn.; the lowest, 32.6°, at Greenville, Van Buren, Me. The highest recorded was 73°, at Springfield, Mass., and Hawleyville, Conn., on the 1st; the lowest, 31°, at Van Buren, Me., on the 25th. The greatest local monthly mean was 64°, at Van Buren, Me.; the least, 31°, at Eastport, Me., Nantucket and Provincetown, Mass. The greatest daily mean was 43°, at Voluntown, Conn., on the 8th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 15 stations reporting, was 60 per cent, which was 6 per cent below the normal for the month. The highest monthly average was 79 per cent, at Concord, N. H.; the lowest, 59 per cent, at Fall River, Mass.

## PRECIPITATION.

The average for the section, as shown by the records of 85 stations, was 2.52 inches, which was 0.10 inch below the average for November, 1914. During the past 27 years the average

November precipitation has been less in 9 and greater in 18 years than the average for the month of the present year. The greatest average for any November in this period was 6.38 inches, in 1897; the least, 1.17 inches, in 1908. The averages for the several states of the section were as follows: Maine, 2.68 inches; New Hampshire, 2.60; Vermont, 2.19; Massachusetts, 2.68; Rhode Island, 2.69; Connecticut, 2.39. The average precipitation for the section was 0.86 inch below the normal. The departures from the normal for the several states were as follows: Maine, -0.63 inches; New Hampshire, -0.39; Vermont, -0.51; Massachusetts, -1.04; Rhode Island, -1.74; Connecticut, -1.22. The greatest monthly amount was 4.22 inches, at Bar Harbor, Me.; the least, 1.21, at Fairfield, Me. The greatest amount in any 24 hours was 2.40 inches, at Canton, Conn., on the 19th. The average snowfall for the section was 1.3 inches, which was 5.2 inches less than that of November, 1914, and 3.4 inches below the normal for the month, as determined from the records of the past 28 years. The greatest average amount for any November in this period was 17.5 inches, in 1898; the least, trace, in 1890. The average fall in the several states was as follows: Maine, 2.3 inches; New Hampshire, 1.4; Vermont, 2.7; Massachusetts, 0.5; Rhode Island, trace; Connecticut, 0.2. The average number of days with .01 inch or more of precipitation was 9, 1 less than the usual number for the month.

## WIND.

The prevailing direction of the wind was from the northwest, which is the normal direction for the month, as determined from the records of the past 28 years. The average monthly wind movement for the section, 15 stations reporting, was 8,797 miles. The average hourly velocity was 12.2 miles, which was 0.1 mile below the average for November, 1914, and 0.6 mile above the normal for the month. The greatest monthly wind movement was 15,266 miles, at Block Island, R. I.; the least, 4,488 miles, at Concord, N. H. The highest recorded velocity was 70 miles per hour from the southeast, at Blue Hill Observatory, Hyde Park, Mass., on the 19th. This is about the usual maximum velocity for the month.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 13; partly cloudy, 7; cloudy, 10. The normal for the month, as determined from the records of the past 28 years, is 10 clear, 8 partly cloudy, and 12 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 47, which was 2 per cent below the normal for the month. The greatest percentage of possible sunshine was 58, at Portland, Me.; the least, 30, at Eastport, Me. The greatest percentage of possible sunshine in any November since the beginning of the automatic records in 1894, was 58, in 1903; the least, 32, in 1896.

## DATES OF MISCELLANEOUS PHENOMENA.

*Auroras*.—North Bridgton, Me., 6, 16, 20; Portland, Me., 5; Durham, N. H., 5, 6; Hanover, N. H., 6, 16; Enosburg Falls, Vt., 6, 7, 8, 18; Fall River, Mass., 15, 17; Rockport, Mass., 5, 15, 16.

*Halos, Solar*.—Northfield, Vt., 4, 14, 18; Blue Hill, Mass., 1, 4, 14, 23, 27; Boston, Mass., 1, 4, 14, 17, 18, 23; Hartford, Conn., 1, 4, 14; New Haven, Conn., 1, 4, 11, 23.

*Halos, Lunar*.—Blue Hill, Mass., 11, 18, 28, 29; Boston, Mass., 14, 16, 18, 19, 23; Rutland, Mass., Hartford and New Haven, Conn., 18.

*Thunderstorms* (dates and number of observers reporting on each): Maine—2d, 4; 20th, 1. New Hampshire—2d, 8; 5th, 1; 19th, 1; 20th, 3; 21st, 1. Vermont—2d, 2; 19th, 2; 20th, 3. Massachusetts—2d, 4; 19th, 1; 29th, 2. Rhode Island—5th, 2; 29th, 3.



## Climatological Data for November, 1915.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				No. of days—				Observer.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.		Cloudy.	Prevailing direction of wind.
Maine.																				
Bar Harbor	Hancock	20	29	39.1	+0.2	62	1†	22	19†	34	4.22	-0.47	1.17	T.	6	12	10	8	se.	William Miller.
Cornish	York	778	60	39.6	+4.5	64	1†	17	18	40	3.81	-0.03	1.57	T.	10	12	13	8	w.	T. H. West.
Eastport	Washington	53	43	38.5	+1.7	56	1	25	25	18	2.16	-1.56	0.49	T.	11	3	12	15	n.	U. S. Weather Bureau.
Fairfield	Somerset	90	30	37.6	+2.2	59	2	20	18	28	1.21	-1.48	0.45	T.	7	17	4	9	n.	E. F. Parker.
Farmington	Franklin	450	18	35.1	+2.0	58	1	15	26	28	3.15	-0.23	1.23	5.5	11	10	9	11	n.w.	State Normal School.
Gardiner	Kennebec	163	23	38.4	+1.7	59	12	20	23	31	3.08	-0.72	1.05	1.0	14	20	2	8	n.	Samuel D. Soule.
Greenville	Piscataquis	1,140	11	32.6		56	1†	11	17	29	2.56	-0.47	0.82	7.7	11				U. S. Weather Bureau.	
Houlton	Aroostook	362	13	34.2		62	2	16	26	28	1.46	-0.72	0.62	2.0	4	11	9	10	w.	Bangor & Aroostook R.R.
Lewiston	Androscoggin	185	32	38.3	+2.6	64	1	23	26	25	3.55	-0.35	1.77		12	13	9	8	n.w.	Union Water Power Co.
Madison	Somerset	257	12	36.2		57	3	18	27	29	2.94	-0.28	1.35	1.5	11	20	5	8	n.w.	William Jardine.
Millinocket	Penobscot	386	12	34.6		57	2	16	26	28	2.85	-0.63	0.95	2.1	13	12	2	16	w.	Great Northern Paper Co.
North Bridgton	Cumberland	450	22	38.5	+1.5	66	1	20	17†	34	3.87	-0.58	1.35	4.0	14	13	8	9	ne.	C. L. Chadbourn.
Orono	Penobscot	129	46	38.2	+4.0	62 <sup>a</sup>	2	19 <sup>a</sup>	19	27 <sup>a</sup>	3.04	-0.72	0.53		11	11 <sup>a</sup>	6 <sup>a</sup>	12 <sup>a</sup>	n.w.	Department of Physics.
Patten	do	550	13	33.2		70 <sup>d</sup>	10	12 <sup>d</sup>	25†	40 <sup>d</sup>	2.30	-0.65	1.00	3.0	4	6 <sup>d</sup>	3 <sup>d</sup>	17 <sup>d</sup>	ne.	Bangor & Aroostook R.R.
Portland	Cumberland	99	44	40.8	+3.2	66	1	25	18	22	2.77	-0.78	1.24	T.	10	13	6	11	sw.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	6																	E. M. Libby.
Rumford	Oxford	505	22	36.9	+2.8	56	1†	20	25†	25	2.30	-0.96	1.05	2.1	10	19	2	9	n.w.	Charles A. Mixer.
Schoodic	Piscataquis	300																		R. H. Cable.
Van Buren	Aroostook	510	11	32.6		65	1	1	25	33	2.06	-0.27	0.90	10.0	10	10	6	14	n.w.	J. M. Thomas.
Winslow	Kennebec	90	20	38.6	+4.2	63	1	22	19	30	1.94	+1.06	0.81	1.0	8	11	7	12	n.	Hollingsworth & Whitney.
New Hampshire.																				
Alstead Center	Cheshire	1,120	11	37.8	+2.8	65	1	18	18	25	1.77	-1.28	0.56	2.5	8	18	4	8	n.w.	Frank Dewing.
Bethlehem	Grafton	1,470	23	34.8	+2.2	63	1	16	17	29	1.66	-1.00	0.41	4.5	10	13	2	15	n.w.	Benjamin Tucker.
Concord	Merrimack	350	55	40.0	+3.2	67	1	22	17	31	2.97	-0.33	1.27	0.5	16	14	5	11	n.w.	U. S. Weather Bureau.
Durham	Stafford	88	20	39.8	+0.8	67	1	22	17	33	3.61	+0.59	1.80	0.7	6	10	10	10	sw.	Agr. Exp. Station.
Franklin	Merrimack	440	16	39.2	+3.4	68	1	20	17	38	3.09	+0.68	0.95	0.5	14	15	5	10	n.w.	Dr. C. P. Webster.
Glencliff	Grafton	1,650	2	34.8		60	2	12	17	24	3.04	-0.80	0.80	3.6	11	12	7	11	n.w.	State Sanatorium.
Grafton	do	863	29	36.0	+1.8	65	1	14	19	38	2.68	-0.24	1.07	3.0	9	18	5	7	n.w.	P. R. Kimball.
Hanover	do	803	81	37.8	+4.2	66	1	16	18	35	1.93	-0.86	0.52	T.	10	12	5	13	w.	Dartmouth College.
Keegan	Cheshire	506	30	38.2	+1.5	67	1	17	18	40	2.25	-0.39	0.90	0.5	10	12	9	9	n.w.	Samuel Wadsworth.
Nashua	Hillsboro	125	30	41.4	+3.2	70	1	24	26	33	2.63	-0.63		1.0	6	9	15	6	w.	C. B. Stevens.
Newton	Rockingham	126	27	39.6	+1.8	69	1	19	26	36	3.22	-0.09	1.40	T.	7	13	11	6	sw.	W. C. Gale.
Plymouth	Grafton	500	27	37.0	+4.3	64	1	19	19†	34	2.33	-0.77	0.84	1.0	10	14	1	15	w.	Hattie G. Trow.
Vermont.																				
Bloomfield	Essex	404	8	34.6		64	1	14	19	36	1.67	-0.19	0.34	4.5	14	11	4	15	s.	Lyman Falls Power Co.
Burlington	Chittenden	404	8	38.1	+4.4	64	1	19	18	28	1.72	-0.79	0.63	T.	13	7	7	16	sw.	U. S. Weather Bureau.
Cavendish	Windor	910	12	35.4		67	1	14	17	29	3.27	+1.18	1.47	0.8	8	9	13	8	.....	Colonial Power Co.
Chelsea	Orange	840	20	35.2	+2.0	65	1	13	18	36	1.65	-1.14	0.50	2.0	9	13	3	14	n.	W. F. Dewey.
Cornwall	Addison	517	22	38.8	+2.7	61	2	16	18	23	2.18	-0.22	0.80	T.	8	13	7	10	n.	C. H. Lane.
Enosburg Falls	Franklin	601	24	34.6	+0.1	62	1	9	18	24	2.77	-0.45	0.67	6.5	15	10	6	14	w.	J. W. Pomeroy.
Hyde Park	Lamoille	576	3	36.6		68	1	15	7	41	2.62	-0.64	0.90	9.0	14	10	3	17	w.	A. V. Wiswell.
Northfield	Washington	876	29	35.4	+3.4	66	1	14	18	38	1.43	-1.18	0.50	3.6	14	7	9	14	s.	U. S. Weather Bureau.
Somerset	Windham	2,096	4	38.1		59	8	18	18	35	2.32	-0.86	0.58	10	13	6	11	n.w.	Power Construction Co.	
St. Johnsbury	Caledonia	711	22	36.7	+3.4	68	1	17	19	36	1.79	-0.85	0.52	2.5	13	11	8	11	sw.	Fairbanks Museum.
Vernon	Windham	310	24	38.8	+1.7	68	1	20	26	27	2.52	-1.39	0.92	0.5	10	10	7	13	n.w.	Conn. River Power Co.
Wells	Rutland	750	24	36.0	+1.1	60	1	15	18	23	2.06	-1.17	0.56	0.5	11	7	11	12	sw.	E. R. Pember.
Woodstock	Windor	700	23	38.4	+4.6	65	1	15	18	35	2.52	-0.36	0.90	T.	8	12	6	12	.....	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	26	41.0	+2.7	69	1	20	18	34	2.20	-1.01	1.01	T.	7	8	8	14	n.w.	Agr. Exp. Station.
Blue Hill	Norfolk	640	31	41.0	+1.3	67	1	24	18	23	2.47	-1.46	1.07	1.0	11	13	7	10	w.	Blue Hill Observatory.
Boston	Suffolk	124	45	45.4	+4.2	72	1	29	18	23	2.14	-1.92	0.83	0.2	9	13	5	12	w.	U. S. Weather Bureau.
Chestnut Hill	do	124	35	43.2	+1.9	70	1	25	27	28	2.38	-1.63	0.96	0.5	8	23	0	7	.....	Met. Water Board.
Clinton	Worcester	370	19	41.4		61	1	24	25	29	2.73	-0.70	1.20	0.8	8				.....	Do.
Concord	Middlesex	139	25	40.9	+2.7	70	1	21	26	27	2.61	-0.62	0.89	0.8	8	15	7	8	n.w.	Fred A. Tower.
Fall River	Bristol	200	49	43.6	+0.7	67	2	27	18	24	2.91	-1.15	1.69	0.2	11	11	18	1	sw.	C. V. S. Remington.
Fitchburg	Worcester	550	32	41.0	+2.6	68	1	24	26	30	2.68	-0.59	1.00	0.8	9	19	4	7	w.	Dr. A. P. Mason.
Framingham	Middlesex	160	35	41.0	+0.3	69	1	23	26†	32	2.51	-1.15	1.08	0.5	8				.....	Met. Water Board.
Hyannis	Barnstable	31	24																.....	C. F. Sleeper.
Lawrence	Essex	51	31	41.5	+1.6	68	1	25	26†	29	3.55	-0.10	1.52	0.5	9	13	14	3	w.	Essex Company.
Lowell	Middlesex	100	30	42.6	+3.1	66	1†	24	26†	30	3.23	-0.37	1.01		7				.....	Props. Locks & Canals.
Middleboro	Plymouth	153	29	40.9		66													.....	Ralph Sampson.
Nantucket	Nantucket	47	29	45.8	+0.6	64	2	33	18	21	2.13	-1.30	0.74	T.	10	8	9	13	n.w.	U. S. Weather Bureau.
New Bedford	Bristol	88	103																.....	City Engineer.
Norfolk	Norfolk	244	12	39.8		70 <sup>a</sup>	1	16 <sup>a</sup>	25	38 <sup>a</sup>	2.42	-1.24	1.23	1.0	5	18	5	7	n.w.	Ruby H. Martyn.
Plymouth	Plymouth	50	30	41.4		66	3	24	23	30	2.39	-1.67	0.83	T.	9	19	4	10	w.	L. B. Knapp.
Provincetown	Barnstable	40	28	44.6	+0.7	63	2	32	18†	20	2.50	-0.87	0.80	T.	8	14	10	6	sw.	Gideon Bowley.
Rockport	Essex	25	13	44.3		66	1	28	23	23	4.03	-1.27	1.27	T.	12	18	4	8	w.	C. F. P. Bearse.
Rutland	Worcester	1,160	13	38.6		64	1	21	30	26	3.50	-1.69	1.69	T.	9	16	6	8	sw.	State Sanatorium.
Springfield	Hampden	199	5	43.0	+4.2	73	1	25	18	32	2.26	-1.58	0.85	0.1	10	13	8	9	n.w.	U. S. Army.
Turners Falls	Franklin	200	29	41.																



## Daily Precipitation for November, 1915.

Stations.	Watershed.	Day of month.																															Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
<b>Maine.</b>																																		
Ashland	St. John			.26						.05			.54	.02	.36	.21					.35		.09									.38	2.20	
Bar Harbor	Coast	T.	T.	T.		.80	T.			T.			T.	.20	1.17						.70	.50										.85	4.22	
Canabridge	Kennebec					.04				T.			T.									.47	.24											
Oranish	Penobscot		.13	.10		.52				.03			.14		.55						1.57	.04	.08		T.	.25			.01		.39			2.20
Northport	Coast	.07								.07			.31		.53						.73													
Eastport	Kennebec	.01	T.			.15	.18	.06		T.			.31	.08	.47	.53					.02	.37	.17									.72	2.42	
Northfield	do	.03	.03	.04	T.	.15	.04			.01	.03		T.	.18	T.	.30	.06	T.	T.		.70	.04	.12	T.	.01	T.					.42	.07	2.16	
Northampton	do					.15							.11		.33						.45	.06			.05				.07		.11		1.95	
Northampton	do					.55				T.			.13	.01	.42						.15	1.23	.09	.02								.00	1.95	
Northampton	do			.03	.10	.29							.07	.22	.22						.17	1.05	.17	.04		.12					.21	.22	3.11	
Northampton	do			.15	T.	T.							.06	.02	.55					.82	.29	.15	T.	T.	T.				.09		.26		2.56	
Northampton	St. John									.02			.04		.35							.45												
Northampton	Penobscot	.08			.05	T.				.04			.41	.03	.22	.18						.20										.90	2.11	
Northampton	Androscooggin		.10	.07		.35				T.			.20		.49						1.59	.18	.10									.28	3.55	
Northampton	Kennebec			.09	.10	.24				.03			.12		.18	.27					1.35		.11						.04		.26	.03		
Northampton	Penobscot	.05			.04	.03			T.	.01	.07		.28	T.	.13	.61					.95	.03	.13						.21		.24		2.04	
Northampton	Saco		.04	.02		.42				.02			.03	.10	.30						.25	1.10	.66						.01		.51		2.55	
Northampton	Androscooggin																																	
Northampton	Penobscot	.16				.09									.50						.50													
Northampton	do									.53					.20																			
Northampton	Coast			.03	.02	.45									.30						.60	.40												
Northampton	St. John												.09		.63						1.24	T.	.04											
Northampton	Androscooggin					.28				.02					.35																			
Northampton	Piscataquis												.06								.98	.07	.02	T.										
Northampton	St. John	.21	.02	.13						.08	T.		.35	.08	.04	.08	.90				.17	T.		T.										
Northampton	Kennebec		.10			.23							.15		.40						.81		.09			.07					.09		2.66	
<b>New Hampshire.</b>																																		
stead Center	Connecticut	T.	T.	T.	.19				T.			T.			.56						.33	.19	.05	T.										
stead Center	do		T.	.18		.08				T.			.24		.20							.12	.33	.04										
stead Center	Merrimack		.12	.02		.30									1.02						1.62	T.			.15									
stead Center	do		T.	.06	.05	.46			.01		T.		.03		.03	.64					1.27		T.	T.		.05								
stead Center	do					.55							.05	.05	.72						1.80													
stead Center	do		.09			.50	.03		.03				.05	.05	.58						.76	.19	.03											
stead Center	do			.27	.06				.04				.23	.73	.50						.80		.02	.01										
stead Center	Connecticut		.07	.21	.37							.01			.16						1.07	.41	.07											
stead Center	do		.07	.21	.37					.08	T.	.03			.52						.41	.17	T.	T.	T.	T.								
stead Center	do		.16	.01	.20					.11			.03		.90						.47	.07	.05											
stead Center	Merrimack																																	
stead Center	do		.03	T.	.62								.03		.79																			
stead Center	do		.08	.08	.25				.02				T.	.03	.48						.31	.53	T.											
<b>Vermont.</b>																																		
Northfield	Connecticut	.04				.02				.06			.08	.01	.22	.15					.19	.22	.16	.09										
Northfield	Champlain		T.	.12	.04	.05			.05		T.		.03		.05	.58	T.				.19	.06	.02	T.										
Northfield	Connecticut	.15			.31										.35	.31	T.				1.47	.04	.04											
Northfield	do			.04	.20					.03			.06		.50						.40	.17	.92											
Northfield	Champlain		.03	T.	.08	T.			.05	T.			.02		.80						.45	T.	.05											
Northfield	do		T.	.35	.12	T.			.04				.27		.67	.02					.06	.35	.17	.03	.01									
Northfield	do		.05		.22	.15			.05				.15		.19	.15					.16	.32	.14	.03										
Northfield	Champlain	.01	T.	.04	.05	.09			.01	T.			.06		.05	.45	.02	T.			.31	.01	.06	.02	T.									
Northfield	Connecticut		.03			.17			.15				.06		.10	.86					.62	.06	.24	.04										
Northfield	do			.04	.10				.10	T.			.04	.05	.13	.05	T.				.62	.06	.24	.04										
Northfield	Champlain		.10		.10	.01			.03				.08		.43	.28					.92	.30	.04	.02										
Northfield	Connecticut		.07		.18				.08				.16		.56						.26	.28	.07	.05										
Northfield	do		.09		.16				.10				T.	.02	.65						.26	.28	.07	.05										
<b>Massachusetts.</b>																																		
Northfield	Connecticut		.03		.07								.02		.96						.76		.01		T.									
Northfield	Merrimack		.04	.02		.34							.08		.70						1.13		.02											
Northfield	do					.62									.76						.60	.49												
Northfield	Coast		.01	.04	T.	.26	.01						.03	.07	.62						1.04		T.											
Northfield	do		T.	.01	.03	.25							.05	.13	.57						1.07		.01											
Northfield	Coast				.33	.10							T.	T.	.69						.83		T.											
Northfield	do			.22	.11								.08		.51	.19					.64	.30	.02											
Northfield	Merrimack		.08			.30							.08		.81						.96													
Northfield	do		.01	.06		.59	T.						T.	.03	.62						1.20		.01											
Northfield	Coast			.03	.06	.61							.09	.01	.20	.58																		

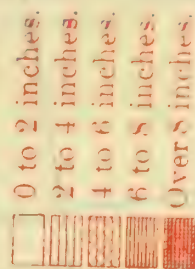


## Daily Temperatures for November, 1915.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean
Maine.																																
Bar Harbor	Maximum	62	62	58	55	44	40	46	55	50	42	45	47	52	48	44	42	56	42	34	56	50	50	42	42	44	47	42	53	52	48	47
	Minimum	49	46	36	28	29	32	30	28	25	32	28	26	37	34	37	30	24	24	22	22	34	30	30	28	24	25	30	35	34	34	30
Cornish	Maximum	64	58	51	54	38	50	58	63	64	51	58	49	59	56	44	48	47	55	46	52	44	48	43	36	47	50	56	60	42	51	51
	Minimum	36	45	37	28	33	28	25	23	38	35	24	32	29	23	35	25	19	17	21	37	32	28	20	26	19	18	20	27	25	28	27
Eastport	Maximum	56	55	47	40	43	40	39	47	44	41	47	46	50	43	52	39	34	89	42	50	48	43	36	39	37	43	42	49	45	47	43
	Minimum	38	44	37	35	35	30	33	36	37	30	31	33	34	32	36	30	26	26	26	40	37	30	26	28	25	31	33	37	39	36	38
Greenville	Maximum	56	56	42	36	34	37	43	48	43	34	40	45	42	34	32	34	35	26	33	44	41	31	30	32	36	45	46	40	37	39	39
	Minimum	31	37	35	30	23	27	25	29	25	27	22	30	32	30	27	24	11	22	17	33	30	23	20	15	18	16	25	35	23	32	26
Millinocket	Maximum	54	57	49	43	35	39	46	51	41	38	44	41	46	44	35	36	30	35	32	45	44	36	32	33	34	44	40	46	40	44	41
	Minimum	36	36	39	34	30	29	33	33	24	31	25	27	31	27	28	29	23	22	18	31	33	29	23	18	13	14	21	33	30	36	28
Orono	Maximum	56	62	56	50	43	40	47	54	54	45	46	48	49	43	46	42	37	43	43	50	47	51	42	40	42	42	43	52	48	46	46
	Minimum	34	40	41	35	32	29	33	29	27	20	26	29	34	30	34	32	24	25	19	30	33	29	27	21	26	26	38	40	53	48	46
Portland	Maximum	66	60	46	43	41	44	51	56	57	49	52	49	53	51	45	41	37	45	52	52	48	44	37	38	39	46	40	53	48	46	47
	Minimum	44	42	37	35	35	32	32	34	38	37	34	43	39	34	38	30	26	25	30	40	37	31	26	30	28	26	32	35	33	32	33
Presque Isle	Maximum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Minimum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rumford	Maximum	56	55	44	41	38	41	47	51	56	40	47	46	46	46	41	37	30	42	40	48	43	38	36	34	39	42	44	49	38	40	43
	Minimum	36	39	38	36	34	52	31	30	32	35	29	34	36	36	35	27	25	24	23	38	36	30	26	27	20	24	30	26	29	30	30
Van Buren	Maximum	65	50	49	39	39	43	44	48	44	36	40	39	43	37	35	33	31	37	32	40	40	38	38	28	31	35	25	40	39	45	39
	Minimum	32	34	37	27	29	28	29	22	25	29	27	25	30	25	28	13	24	22	29	33	28	21	8	1	5	15	34	35	35	25	25
New Hampshire.																																
Alstead Center	Maximum	65	59	43	38	40	41	51	52	43	46	50	50	45	46	40	40	34	38	43	49	42	38	36	32	40	46	49	48	47	40	44
	Minimum	42	43	36	33	33	25	26	38	32	30	39	35	34	29	36	28	25	18	26	35	36	30	26	27	27	32	34	33	28	31	31
Bethlehem	Maximum	63	57	41	36	35	37	42	51	49	38	43	47	43	43	42	35	24	36	42	49	38	34	34	38	41	50	51	47	46	44	42
	Minimum	37	36	32	29	29	17	22	37	29	21	34	34	30	32	20	16	18	20	28	32	27	22	22	23	23	26	33	28	30	27	27
Concord	Maximum	67	59	44	40	39	47	49	57	60	47	53	48	52	52	44	40	37	49	55	48	50	42	39	37	45	51	52	58	47	41	48
	Minimum	39	40	39	35	33	32	27	27	35	37	35	35	36	30	38	31	22	24	24	40	32	32	28	28	26	22	23	32	30	25	31
Franklin	Maximum	68	59	46	45	37	47	49	63	60	47	53	46	53	55	46	42	37	49	55	48	50	42	39	37	45	51	52	58	47	41	48
	Minimum	31	36	37	36	32	33	26	25	31	36	33	35	36	30	28	36	30	20	23	22	38	35	31	24	27	24	21	23	31	27	30
Hanover	Maximum	66	60	43	44	40	44	48	55	56	46	49	49	50	54	43	38	36	42	49	48	41	40	38	42	44	51	52	54	42	39	46
	Minimum	32	36	37	64	33	31	21	20	37	34	28	28	29	24	36	25	19	16	20	38	36	32	24	29	27	20	21	32	26	26	28
Nashua	Maximum	70	62	49	49	43	49	50	58	63	52	57	54	54	51	45	44	41	51	51	51	51	38	38	29	27	28	24	23	30	31	51
	Minimum	37	43	36	36	33	33	28	26	31	37	32	40	36	27	39	33	24	25	25	38	38	29	27	28	28	24	23	30	28	32	31
Plymouth	Maximum	64	56	47	42	40	43	45	53	56	49	48	47	47	49	41	41	35	40	37	41	40	38	38	42	47	49	51	44	39	45	45
	Minimum	30	31	36	34	34	31	28	29	31	35	32	34	27	30	34	29	24	23	19	37	35	32	24	26	21	19	19	30	25	32	29
Vermont.																																
Burlington	Maximum	64	54	43	39	36	40	40	51	53	44	45	54	47	46	43	36	32	38	48	44	42	37	37	39	45	52	54	48	41	37	44
	Minimum	48	42	36	32	32	27	24	23	39	34	27	44	38	32	36	24	21	19	28	36	34	30	27	27	29	34	41	34	35	31	31
Enosburg Falls	Maximum	62	58	44	38	36	10	40	50	52	42	45	49	49	38	37	37	26	32	45	45	39	37	30	29	43	34	58	49	46	38	42
	Minimum	40	43	32	28	31	24	15	16	34	30	19	36	35	32	34	23	14	9	16	36	34	24	22	20	17	24	26	31	27	32	26
Northfield	Maximum	66	56	42	39	37	40	43	54	54	42	49	51	48	48	42	35	29	34	45	43	42	36	36	39	44	49	50	51	41	37	44
	Minimum	34	39	34	31	31	22	16	16	36	32	26	36	32	24	32	22	16	14	16	38	34	28	25	21	17	21	26	25	25	28	26
St. Johnsbury	Maximum	68	64	46	39	40	41	45	54	52	44	49	52	47	47	47	38	29	37	45	47	41	37	36	43	42	52	53	51	43	39	45
	Minimum	36	35	35	33	32	31	19	18	34	33	23	37	28	29	32	25	19	19	17	36	36	30	25	23	21	19	20	37	32	32	27
Wells	Maximum	60	58	45	42	38	36	38	46	50	44	42	52	43	45	40	40	34	34	44	44	38	36	34	34	36	38	50	45	44	34	42
	Minimum	42	42	34	26	33	30	24	23	36	30	23	37	32	28	36	26	26	15	23	34	34	28	27	26	28	32	29	30	27	27	20
Massachusetts.																																
Amherst	Maximum	69	58	60	58	42	50	55	61	59	53	35	56	54	46	45	42	43	48	57	48	50	42	49	29	49	50	39	59	44	41	51
	Minimum	45	43	37	27	38	32	27	27	44	36	31	44	31	32	38	29	27	20	24	39	35	31	27	29	24	23	24	33	30	27	



Scale of Shades.





## Daily Precipitation for November, 1915—Continued from page 85.

Stations.	Watershed.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
<i>Rhode Island.</i>																																	
Block Island***	Coast				.07	.18							.01	.01	.43	.17				1.03		T.		.01	.07				T.		.26		2.24
Bristol	do	T.				.04	.12			T.				.05		.62				1.20		.02			.03				T.		.16		2.24
Greene	do						.10	.01		.03					.04		.66			1.68		.04			.01						.27		2.84
Hope Valley	do																																
Kingston	do			.16	.03					T.				.05		.11	.55			1.40		.02			.09			.02		.43		2.80	
Narrag'sett Pier***	do			.01	.22					T.				.01	.06	.73	T.			1.00		.02			.05				.03	.24		2.37	
Pawtucket	do	T.	T.		.10					.01				.03		.65				.96		T.			.06					.36		2.20	
Providence***	do	T.	T.	.02	.08					.02				.02		.27	.31			.62		T.		T.	.04					.29		1.67	
Wallum Lake	do			.07		.05										1.02		T.		1.35		.10			.02							2.61	
<i>Connecticut.</i>																																	
Bridgeport	Coast	T.		.05	.03					.10				T.		.05	.46			.79		T.			.02				T.		.10		1.60
Canton	Connecticut		.05		.12									.05		.64				2.40			.09						T.		.10		3.45
Colchester	Coast	T.		.11	.22					T.				.08		.56				2.00		.05			.12				T.		.18		3.21
Cream Hill	Housatonic	T.		.11	.06					.13				.02	.04	.80		.01		1.25		.05			.08				.04		.13		2.70
Danielson	Coast			.02			.03									.97				1.00	T.				.05					.50		2.65	
Falls Village	Housatonic		.10						.14					.12	.20	.50				.87		.07		.05			.02			.14		2.67	
Hartford**	Connecticut		.02		.02	.09				.06				.07	.17	.58				.56	T.	.03		T.				.01		.19		2.59	
Hawleyville	Housatonic			.30												.85				1.25				T.						.10		1.45	
Lake Konomocott	Coast			.05																1.20					.10					.10		1.90	
New Haven***	do	T.	T.	.04	.02					.04		T.	.02		.24	.28		T.		1.10	T.	.02		.02				.02		.12		1.97	
New London	do			.25						.04						.40	.02			1.14										.14		1.91	
N. Grosvenor Dale	do		.02		.10					.02					.55	.78				.72	.04				.04					.09		1.48	
Norwalk	do			.05						.08						.42				.81		.03		T.						.20		2.50	
Southington	do	T.	T.	.15						.05				.05		.70	T.			1.30	T.	.05			T.				T.	T.	.20		2.93
Storrs	Coast		.02		T.					T.				.10		.65				1.77		T.			.12					.17		2.63	
Torrington	Housatonic																													.16		2.63	
Voluntown	Coast					.10				.03					.05	.60				1.62					.07					.04	.01	.02	2.08
Wallingford	do	T.			.01			.13						.05	.30	.20				1.25		.04							.04	.01	.02	2.58	
Waterbury	Housatonic		.06	T.		.08				.08				.03		.58				1.50		.05		.02					.02		.16		2.58

Except as otherwise indicated observations are generally in the late afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight. \* Precipitation indicated in that of following day.

T. Precipitation is less than 0.01 inch rain or melted snow.  
 † Post-office addresses of these stations are as follows: Bikers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomocott, New London Water Works, New London, Conn.

## Comparative Data for New England for November.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.								
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888....	39.5	86	- 9	6.32	14	5.0	9	7	14	sw.	12.4	84	ne.	1902....	41.9	71	- 1	1.27	1.25	7	2.0	10	8	12	39	nw.	9.5	60	e.		
1889....	41.1	68	- 3	6.12	14	3.4	9	7	15	w.	10.3	63	se.	1903....	35.2	78	- 9	2.01	2.00	7	3.9	15	6	9	58	nw.	9.1	52	ne.		
1890....	37.4	71	- 2	1.40	8	1	10	11	9	nw.	15.0	54	se.	1904....	32.5	67	-10	1.63	2.10	5	5.9	13	7	10	52	nw.	9.6	74	ne.		
1891....	37.7	68	-14	2.69	10	1.8	11	8	11	nw.	11.6	63	ne.	1905....	36.2	69	- 6	2.60	2.15	8	2.5	13	7	10	54	w.	10.5	63	s.		
1892....	37.7	76	- 6	5.10	14	6.8	8	6	17	nw.	11.6	70	ne.	1906....	37.3	70	0	2.58	2.20	9	8.4	10	7	13	41	nw.	10.9	61	ne.		
1893....	37.8	72	- 1	2.17	7	2.6	10	10	10	sw.	11.4	72	se.	1907....	38.0	69	0	5.06	3.00	10	2.4	10	7	13	37	nw.	10.6	70	ne.		
1894....	34.2	69	- 8	3.36	15	8.7	11	7	13	sw.	13.1	73	e.	1908....	38.1	69	- 4	1.17	1.20	8	3.2	12	7	11	49	nw.	11.2	60	w.		
1895....	40.8	77	- 3	5.98	15	3.0	8	8	15	32	sw.	12.0	52	sw.	1909....	41.6	78	7	2.96	4.36	9	3.1	11	8	11	39	sw.	12.7	72	ne.	
1896....	42.0	74	-11	3.19	12	3.8	8	8	15	36	nw.	13.1	63	sw.	1910....	36.7	67	4	3.40	5.04	9	6.6	7	9	13	46	nw.	12.1	58	nw.	
1897....	36.9	68	- 3	6.48	5.80	14	7.5	10	6	14	36	nw.	12.2	97	ne.	1911....	37.0	71	0	4.21	2.70	11	3.0	10	9	11	46	w.	13.3	62	nw.
1898....	37.7	67	- 3	5.68	3.60	11	17.5	10	6	14	36	nw.	10.0	53	nw.	1912....	39.6	76	5	3.59	2.97	8	3.0	13	6	11	46	nw.	12.2	62	ne.
1899....	37.1	71	- 5	2.16	2.21	6	3.0	10	7	13	45	nw.	11.7	71	w.	1913....	41.4	75	- 6	2.37	3.64	7	2.6	12	7	12	49	nw.	11.6	58	s.
1900....	40.0	74	- 1	5.49	3.86	12	6.9	8	7	15	38	nw.	11.7	71	w.	1914....	36.7	76	-10	2.62	3.60	8	6.5	11	9	10	49	nw.	12.3	58	ne.
1901....	32.7	72	- 9	2.20	2.20	7	6.7	9	8	13	41	nw.	11.3	81	ne.	1915....	39.6	73	1	2.52	2.40	9	1.3	13	7	10	47	nw.	12.2	70	se.



U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU

CHARLES F. MARVIN, CHIEF

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CLIMATOLOGICAL DATA  
NEW ENGLAND SECTION

DECEMBER, 1915

---

BY

JOHN W. SMITH

DISTRICT FORECASTER AND SECTION DIRECTOR

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
JANUARY 19, 1916



Departure of the Mean Temperature from the Normal, December, 1915.



Shaded portions show excess (+).  
Unshaded portions show deficiency (-).  
Lines show amount of excess or deficiency.



U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

NEW ENGLAND SECTION.

J. W. SMITH, District Forecaster and Section Director.

CL. XXVII. BOSTON, MASS., DECEMBER, 1915. No. 12.

GENERAL SUMMARY.

The average temperature for the section, except in the southern portion, was above the normal for the month. No extreme low temperatures occurred until the 30th and 31st, when a cold wave of moderate severity caused minimum temperatures of zero to  $-23^{\circ}$  in Vermont, western and northern New Hampshire, and northern Maine. The greater portion of the precipitation was in the form of snow, except in the southern portion. The heaviest snowfall of the month was on the 13th, when from 12 to 30 inches fell in an area covering the northern portions of New Hampshire and Vermont, western Massachusetts, and northwestern Connecticut. The ground was generally covered with snow after the 13th; at the close of the month the depth remaining ranged from 3 to 15 inches, except in the southeastern coast sections, where there was little or none. The storms of the 13th and 26th were of exceptional severity, the former causing much damage to wires in Connecticut and seriously interrupting railroad and wire service for several days by the heavy snowfall; the latter caused unusually high westerly winds.

PRESSURE.

The mean sea-level atmospheric pressure for the section, 14 stations reporting, was 29.93 inches, which was .11 inch below the normal for the month. The highest monthly mean was 29.97 inches, at Burlington and Northfield, Vt., Hartford and New Haven, Conn.; the lowest, 29.84 inches, at Eastport, Me. The lowest recorded was 30.62 inches, at Burlington, Vt., on the 13th; the lowest, 28.74 inches, at Providence, R. I., on the 13th. The monthly range for the section was 1.88 inches.

TEMPERATURE.

The monthly mean for the section, as shown by the records of 14 stations, was  $27.4^{\circ}$ , which was  $3.0^{\circ}$  above the mean for December, 1914. During the past 27 years the average temperature for December has been higher in 11 and lower in 16 years than the average for the month in the present year. The highest average December temperature during this period was  $35.9^{\circ}$ , in 1891; the lowest,  $18.3^{\circ}$ , in 1904. The average temperature for the several states of the section, was as follows: Maine,  $25.6^{\circ}$ ; New Hampshire,  $25.5^{\circ}$ ; Vermont,  $23.7^{\circ}$ ; Massachusetts,  $30.4^{\circ}$ ; Rhode Island,  $31.9^{\circ}$ ; Connecticut,  $28.9^{\circ}$ . The average temperature for the section was  $0.9^{\circ}$  above the normal. The departures from the normal for the several states were as follows: Maine,  $+4.0^{\circ}$ ; New Hampshire,  $+1.5^{\circ}$ ; Vermont,  $+1.4^{\circ}$ ; Massachusetts,  $+0.3^{\circ}$ ; Rhode Island,  $-1.5^{\circ}$ ; Connecticut,  $-1.3^{\circ}$ . The highest monthly mean was  $35.6^{\circ}$ , at Nantucket, Mass.; the lowest,  $21.1^{\circ}$ , at Glencliff, N. H. The highest recorded was  $67^{\circ}$ , at Enosburg Falls and Woodstock, Vt.; the lowest,  $34^{\circ}$ , at Nantucket, Mass. The greatest daily range was at Enosburg Falls, Vt., on the 31st.

HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 14 stations reporting, was 75 per cent, which was 1 per cent above the normal for the month. The highest monthly average was 88 per cent, at Northfield, Vt.; the lowest, 70 per cent, at Portland, Me.

PRECIPITATION.

The average for the section, as shown by the records of 82 stations, was 4.34 inches, which was 1.30 inches above the average

of December, 1914. During the past 27 years the average December precipitation has been greater in 4 and less in 22 years than that of the present year and the same in 1 year. The greatest average for any December during this period was 7.59 inches, in 1901; the least, 1.32 inches, in 1892. The averages for the several states of the section were as follows: Maine, 3.78 inches; New Hampshire, 3.94; Vermont, 3.69; Massachusetts, 4.86; Rhode Island, 5.05; Connecticut, 4.99. The average precipitation for the section was 0.91 inch above the normal. The departures from the normal for the several states were as follows: Maine,  $+0.55$  inches; New Hampshire,  $+0.77$ ; Vermont,  $+0.92$ ; Massachusetts,  $+1.22$ ; Rhode Island,  $+0.97$ ; Connecticut,  $+1.16$ . The greatest monthly amount was 7.52 inches, at Cream Hill, Conn.; the least, 2.40, at Patten, Me. The greatest amount in any 24 hours was 2.75 inches, at New Haven and Waterbury, Conn., on the 13th. The average snowfall for the section was 15.8 inches, which was 8.9 inches greater than the average for December, 1914, and 4.9 inches above the normal for the month, as determined from the records of the past 28 years. The greatest average amount for any December in this period was 24.2 inches, in 1902; the least, 2.3 inches, in 1891. The average fall in the several states was as follows: Maine, 13.9 inches; New Hampshire, 17.0; Vermont, 27.4; Massachusetts, 11.2; Rhode Island, 3.5; Connecticut, 18.9. The number of days with .01 inch or more of precipitation was 11, 1 more than the normal number for the month.

WIND.

The prevailing direction of the wind was from the northwest, which is the normal direction for the month, as determined from the records of the past 28 years. The average monthly wind movement for the section, 14 stations reporting, was 9,164 miles. The greatest monthly wind movement was 17,169 miles, at Block Island, R. I.; the least, 4,476 miles, at Concord, N. H. The average hourly velocity was 12.3 miles, which was 0.5 mile above the average for December, 1914, and 0.9 mile above the normal for the month. The highest recorded velocity was 86 miles per hour from the west, at Blue Hill, Mass., and Block Island, R. I., on the 26th. This is the highest velocity of record in any December within the past 28 years.

SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 10; partly cloudy, 6; cloudy, 15. The normal for the month, as determined from the records of the past 28 years, is 11 clear, 8 partly cloudy, and 12 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 39, which was 6 per cent below the average for December, 1914, and 4 per cent below the normal for the month. The greatest percentage of possible sunshine was 54, at New Haven, Conn.; the least, 22, at Burlington, Vt. The greatest percentage of possible sunshine in any December since the beginning of the automatic records in 1894, was 55, in 1894 and 1896; the least, 31, in 1906.

DATES OF MISCELLANEOUS PHENOMENA.

*Parhelia*.—North Bridgton, Me., 30.

*Auroras*.—Howe Brook, Me., 12; Enosburg Falls, Vt., 12.

*Halos, Solar*.—Eastport, Me., 13; Northfield, Vt., 30; Boston, Mass., 22; Block Island, R. I., 12, 22; New Haven, Conn., 12, 14; Norwalk, Conn., 1.

*Thunderstorms* (dates and number of observers reporting on each): Massachusetts—13th, 1; 14th, 1; 29th, 1. Rhode Island—29th, 1. Connecticut—26th, 1.

*Halos, Lunar*.—North Bridgton, Me., 14, 20, 29; Bethlehem, N. H., 29; Hanover, N. H., 12, 15; Blue Hill, Mass., 12, 20, 21, 29; Boston, Mass., 20, 21; Concord, Mass., 20; Hingham, Mass., 12; Leominster, Mass., 29; Nantucket, Mass., 20, 21; Somerset, Mass., 20; Block Island, R. I., 20; Hartford, Conn., 12, 16, 20; New Haven, Conn., 16, 20, 23.



## Climatological Data for December, 1915.

		Temperature, in degrees Fahr.										Precipitation, in inches.				No. of days—				Prevailing direction of wind.	Observer.
Stations.	Counties.	Elevation, feet.	Length of record, years.	Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.	Cloudy.			
<b>Maine.</b>																					
Bar Harbor	Hancock	20	29	28.5	+1.7	50	26	5	13†	30	3.50	-1.14	1.60	6.0	7	7	8	16	se.	William Miller.	
Cornish	York	778	60	28.2	+3.0	49	26	7	31	43	4.01	+0.89	1.12	16.5	8	9	6	15	w.	T. H. West.	
Eastport	Washington	53	43	29.6	+4.3	53	26	7	31	23	3.82	-0.04	1.59	4.4	13	4	5	22	w.	U. S. Weather Bureau.	
Fairfield	Somerset	90	30	24.8	+3.1	40	1	-3	31	21	2.66	-1.01	0.85	6.5	6	3	20	8	n.	E. F. Parker.	
Farmington	Franklin	450	18	24.7	+7.2	43	26	-6	31	33	4.08	+0.76	1.84	14.0	9	11	5	15	nw.	State Normal School.	
Gardiner	Kennebec	163	23	26.2	+2.5	53	26	-7	31	29	3.74	+0.07	1.12	8.0	10	14	4	13	w.	Samuel D. Soule.	
Greenville	Piscataquis	1,140	11	22.0		44	26	-1	31	23	4.84	+2.05	1.61	24.3	15					U. S. Weather Bureau.	
Houlton	Aroostook	362	13	24.1		38	11	6	30	30	3.85	+1.48	1.25	15.0	6	9	6	16	w.	Bangor & Aroostook RR.	
Lewiston	Androscoggin	185	32	26.9	+8.5	49	26	4	31	24	3.99	+0.05	1.32	11.2	12	10	10	11	nw.	Union Water Power Co.	
Madison	Somerset	267	12	24.2		45	27	-3	31	28	3.39	+0.20	0.72	13.5	8	14	7	10	sw.	William Jardine.	
Millinocket	Penobscot	386	12	24.2		48	26	0	13	24	4.40	+1.27	1.20	19.0	13	12	1	18	w.	Great Northern Paper Co.	
North Bridgton	Cumberland	450	22	26.4	+2.7	47	26†	5	22	32	4.03	+0.68	1.54	14.0	8	9	7	15	e.	C. L. Chadbourne.	
Orono	Penobscot	129	46	28.8	+7.5	54	26	-4	31	29	3.57	+0.05	0.65	12.5	10	13	2	16	nw.	Department of Physics.	
Patten	do	550	13	21.7†		40	22	0†	31	37	2.40	+0.12	1.00	8.0	4	10†	3†	14	ne.	Bangor & Aroostook RR.	
Portland	Cumberland	99	44	29.4	+2.3	50	26	12	31	23	4.87	+1.12	1.60	12.1	10	11	7	13	nw.	U. S. Weather Bureau.	
Presque Isle	Aroostook	1,000	6	21.4		44	26	-15	31	30	4.05	+1.70	1.20	33.5	12	9	7	15	n.	E. M. Libby.	
Rumford	Oxford	505	22	26.4	+4.9	45	26	9	31	21	3.47	+0.63	1.39	16.5	9	12	9	10	nw.	Charles A. Mixer.	
Schoodic	Piscataquis	360																		R. H. Cable.	
Van Buren	Aroostook	510	11	21.7		44	5†	-9	31	28	3.79	+1.11	1.06	20.5	11	5	6	20	nw.	J. M. Thomas.	
Winslow	Kennebec	90	20	26.8	+5.8	52	26	-4	31	39	3.40	+0.55	1.10	9.0	9	15	2	14	n.	Hollingsworth & Whitney.	
<b>New Hampshire.</b>																					
Aldstead Center	Cheshire	1,120	11	24.6	+1.3	50	26	6	31	26	4.68	+1.61	1.87	29.0	12	14	3	14	nw.	Frank Dewing.	
Bethlehem	Grafton	1,470	23	22.0	+1.4	50	26	-5	31	33	3.70	+1.37	1.16	21.0	10	7	4	20	w.	Benjamin Tucker.	
Concord	Merrimac	350	55	27.8	+1.4	55	26	11	31	29	3.42	+0.33	1.40	14.2	12	12	3	16	nw.	U. S. Weather Bureau.	
Durham	Stafford	88	20	28.2	-0.1	50	26	3	31	29	3.85	+0.35	1.62	8.5	11	10	6	15	nw.	Agr. Exp. Station.	
Franklin	Merrimac	440	16	26.8	+3.2	51	26	8	31	25	3.69	+0.21	1.17	14.0	11	9	7	15	nw.	Dr. C. P. Webster.	
Glencliff	Grafton	1,650	2	21.1		48	26	-2	31	24	4.66		1.28	29.1	15	8	9	14	nw.	State Sanatorium.	
Grafton	do	868	29	23.8	+2.0	50	26	0	31	25	2.73	-0.33	1.20	13.0	9	14	1	16	nw.	P. R. Kimball.	
Hanover	do	603	81	24.7	+3.3	45	26	-14	31	34	4.35	+1.71	1.68	18.0	13	4	2	25	n.	Dartmouth College.	
Keene	Cheshire	506	30	25.2	-0.4	53	20	-7	31	34	5.61	+2.61	1.78	23.2	11	11	4	16	nw.	Samuel Wadsworth.	
Nashua	Hillsboro	125	30	28.8	+1.1	54	26	8	31	31	8.60	+0.03	1.12	10.4	10	8	9	14	nw.	C. B. Stevens.	
Newton	Rockingham	126	27	27.6	-0.1	56	26	2	31	32	3.79	+0.53	1.45	10.5	8	9	14	8	nw.	W. C. Gale.	
Plymouth	Grafton	500	27	25.4	+3.2	47	26	4	31	23	3.20	+0.05	1.20	12.5	13	8	1	22	w.	Hattie G. Trow.	
<b>Vermont.</b>																					
Bloomfield	Essex		8	23.0		49	25	-17	31	36	2.73	+0.61	0.96	26.8	13	6	4	21	s.	Lyman Falls Power Co.	
Burlington	Chittenden	404	8	25.2	+2.7	44	25	-5	31	22	2.61	+0.72	1.02	24.2	12	2	5	24	s.	U. S. Weather Bureau.	
Cavendish	Windsor	910	12	22.1		49	25	-14	30	39	3.81	+1.41	1.08	25.0	8	5	8	15	n.	Colonial Power Co.	
Chelsea	Orange	840	20	22.6	+1.4	49	26	-17	31	31	2.92	+0.36	1.00	24.0	12	6	3	22	n.	W. F. Dewey.	
Cornwall	Addison	517	22	26.4	+1.0	42	25	7	30	19	7.87	+0.79	1.00	26.5	14	4	7	20	n.	C. H. Lane.	
Enosburg Falls	Franklin	601	24	21.6	-0.7	44	26	-23	31	46	3.83	+0.93	1.30	28.4	18	5	4	22	nw.	J. W. Pomeroy.	
Hyde Park	Lamoille	576	3	22.4		42	26	-16	31	39	2.76		1.07	40.0	13	7	0	24	nw.	A. V. Wiswell.	
Northfield	Washington	876	29	22.3	+1.8	48	26	-15	31	32	2.76	+0.17	1.20	23.5	11	3	4	24	n.	U. S. Weather Bureau.	
Somerset	Windham	2,096	4	21.8		45	25	6	31	30	7.10		2.65	42.3	14	2	9	20	nw.	Power Construction Co.	
St. Johnsbury	Caledonia	711	22	24.3	+3.6	43	26	-15	31	31	3.03	+0.66	1.45	17.5	14	6	4	21	n.	Fairbanks Museum.	
Vernon	Windham	310		25.4	-0.3	47	26	6	31	29	4.58	+1.34	1.25	18.8	9	9	11	11	nw.	Conn. River Power Co.	
Wells	Rutland	750	24	23.4	-0.4	50	26	-1	31	28	4.45	+1.80	1.09	30.0	11	2	12	17	sw.	E. R. Pember.	
Woodstock	Windsor	700	23	25.8	+4.3	58	26	-9	31	35	3.55	+0.61	1.00	25.0	9	5	5	21	n.	John S. Eaton.	
<b>Massachusetts.</b>																					
Amherst	Hampshire	222	26	27.0	-0.3	53	26	2	31	30	5.86	+2.32	1.30	11.3	12	10	5	16	nw.	Agr. Exp. Station.	
Blue Hill	Norfolk	640	31	28.6	-1.2	56	26	11	31	28	5.69	+1.93	1.44	12.3	15	10	8	13	w.	Blue Hill Observatory.	
Boston	Suffolk	124	45	34.2	+2.6	61	18	16	31	31	3.94	+0.29	1.17	6.7	12	13	4	14	w.	U. S. Weather Bureau.	
Chestnut Hill	do	124	35	31.5	+1.1	62	26	10	12†	28	5.33	+1.42	1.52	5.5	11	19	0	12	n.	Met. Water Board.	
Clinton	Worcester	370	19	29.6		59	25	11	30	28	5.12	+1.91	1.75	9.2	13				n.	Do.	
Concord	Middlesex	139	25	28.7	+1.3	57	26	0	31	31	4.88	+1.54	1.37	13.2	14	9	9	13	nw.	Fred A. Tower.	
Fall River	Bristol	200	49	32.5	+1.7	58	18	10	31	27	5.11	+0.75	1.50	6.0	11	10	15	6	nw.	C. V. S. Remington.	
Fitchburg	Worcester	550	32	28.4	-0.1	55	26	10	31	28	4.74	+1.19	1.52	16.0	11	13	3	15	nw.	Dr. A. P. Mason.	
Framingham	Middlesex	160	35	29.1	-1.2	58	18	2	31	30	5.33	+1.36	1.69	6.8	11				n.	Met. Water Board.	
Hyannis	Barnstable	31	24																n.	C. F. Sleeper.	
Lawrence	Essex	51	31	29.2	+0.6	57	26	11	12†	29	5.27	+1.90	1.50	6.5	14	9	13	9	w.	Essex Company.	
Lowell	Middlesex	100	30	29.4	+0.6	53	26	8	31	27	5.67	+1.93	1.85		12				n.	Props. Locks & Canals.	
Middleboro	Plymouth	53	29																n.	Ralph Sampson.	
Nantucket	Nantucket	47	29	35.6	-1.1	55	18	21	12	23	3.87	-0.27	1.00	3.2	14	4	12	15	nw.	U. S. Weather Bureau.	
New Bedford	Bristol	88	103	33.1	+1.1	54	18	16	12	24	4.04	-0.10	1.04	7.8	10	16	4	11	nw.	City Engineer.	
Norfolk	Norfolk	244	12																n.	Ruby H. Martyn.	
Plymouth	Plymouth	50	30	30.5		56	19	11	31	31	3.77	-0.19	0.97	6.1	11	14	4	13	sw.	L. B. Knapp.	
Provincetown	Barnstable	40	28	33.4	-1.7	50	19†	20	11	18	3.12	-0.54	1.28	1.5	14	12	5	14	w.	Gideon Bowley.	
Rockport	Essex	25	13																n.	C. F. P. Beare.	
Rutland	Worcester	1,160	13																n.	State Sanatorium.	
Springfield	Hampden	199	5	29.6	+1.0	55	26	9	31	29	5.68	+2.16	2.22	26.8	11	12	5	14	nw.	U. S. Army.	
Turners Falls	Franklin	200	29	28.0																	



## Daily Precipitation for December, 1915.

Stations.	Watershed.	Day of month.																															Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Maine.																																		
Ashland	St. John				.16	.15			.10	.04	.10				.34	.01			.50	T				.08	.40	.07	1.01	T					2.96	
Bar Harbor	Coast						T			.10					.35					1.60					.55	T	.20		.50	.20			3.50	
Cambridge	Kennebec				T	T			.02	T					.55					.74				.64		.20							1.23	
Cornish	Saco		T		T	T			.05	T					1.10				.12	1.00				.72		.12	.50			.40			1.01	
Danforth***	Penobscot				.10				.15	.12					.15					1.00													3.17	
Eastport	Coast			T	T	.23			.17	T	.10				.56	.13	.03	.05	1.57					.32	.07	.39		.02	.18				3.82	
Eustis	Kennebec	T		T	.03	.05	T	T	.04	.02	.02	T	T		1.16	.02	.02	T	.44	.15	T	.02	T		.02	.48	.02	1.05	.20	T	T	.15	3.91	
Fairfield	do								.04						.16				.75					.61			.85						2.66	
Farmington	do				.03	T			.06	T					.55				.63					1.00	.58	.04	1.84			.20	.15		4.08	
Gardiner	do					.04	.04		.01	T					.36				1.12	.10													3.91	
Greenville**	do				.05	.07	.28	T	.15	.03	.02				.72	T		.10	.66	T	.05	T		.22	.52	.26	1.66		.65				4.84	
Houlton	St. John				.50	.50			.06		1.25	.02			.60				.35														3.85	
Howe Brook	Penobscot				.09	.28			.06						.31				.12							.20		.65	.04				1.75	
Lewiston	Androscoggin		T		.03	.28			.02	.01					.57			.09	1.12					.21	.21	T	1.32			.32	.07		3.99	
Madison	Kennebec				.16				.15						.72																		3.29	
Millinocket	Penobscot			.09	.08	.05			.17	.02					.43	.19		.29	.52				T	.73	.11	.52	1.20		T				4.40	
North Bridgton	Saco				T	T			.02		.01				.60		T	T	.88						.72		1.54			.18	.08		4.03	
Quossec	Androscoggin				T	T			.10	.20	.05				.06			.06	.01					.03		*	1.20						1.39	
Orono	Penobscot				T	T			.10	.20	.05				.60			.48	.41						.32		.65	.46		.30			3.57	
Patten	do				T	T			.10	.20	.05				.60			.48	.41						.32		.65	.46		.30			2.40	
Portland***	Coast		T	T		.01			.04	.02					.50				1.00						.30		.60						4.87	
Presque Isle	St. John			T	.10	.15	T	T	T	.20	.20	T			.16	1.44			T	1.15				.33	.06		.89		T	.77			4.05	
Rumford	Androscoggin				.01				.02	T					.52			T	T	.54					.10	.80	.10	1.20	.60				3.47	
Schoodic	Piscataquis								.02	T					.52			T	T	.54					.59	.08	.10	1.25		.31			3.79	
San Buren	St. John	.10	T		T	.10			T	.39	.10				.42	.10			.12	T					.12	.87	.50	1.06					3.40	
Winslow	Kennebec				T	*	.06		T	*	.10				.41				.95						.66		1.10			.12			3.79	
New Hampshire.																																		
Alstead Center	Connecticut	.05	.01			T	T		.06	.01	T				.20	.77			.12	1.03	T					.15	T	1.87		T	.35	.09	4.68	
Bethlehem	do				T	T	.10	.05	T	.10	.25				.80				T	.74	T					.15	T	1.16		T	.24	.15	3.70	
Brookline	Merrimack	.01							.05						.80					.05	1.10					.22		.80	.10		.22	.45	3.80	
Concord***	do				T	.01	.01		.08	.13					.53					.13	1.30					.26		.58					3.42	
Durham	do								.07	.06					.63					1.02					.01	.40		.53	.01	.23	.11	.18	3.85	
Franklin	do				.04				.05	.07					.57				.05	.95	T				.05	.24	T	1.17			.34	.16	3.69	
Hendrich	do	*	.07		.04				.09	.50					.90				.83						.20	*	1.28	.05		.60			4.66	
Rafton	do	.03	T						.03	.02					.51				T	.51						.11	.02	.20		.30			2.73	
Manchester	Connecticut	.04	.02	T	T	T			.04	.05					.33	.47			.07	.68	T	T	T		.15	.29	.03	1.68		T	.60	.05	4.35	
Lee	do								.06	T					.19	1.05			.20	1.55					.15			1.78		.09	.35	.15	5.61	
Ashua	Merrimack	T							.02	.02					1.12	T			.01	1.09					.36	.12		.56		.27	.33	3.60		
Lewton	do	T							.10	.05	T				.71	T			T	1.45					.30			.44		.41	.24	3.79		
Lymouth	do	.06	.03	T					T	.05	T				.13	.10	.05		.06	.70	T				T	.40	.10	1.20	T		.12	.20	3.20	
Vermont.																																		
Boonfield	Connecticut				.05				T	.06	.01				.29	.30	.02	.07		.63					.05	.20	.20	.96		.05	.16	.13	2.73	
Burlington***	Champlain	T	T	T	.07	T	T		.03	.15	.02	T			.29	.47		T	.03	.35	T				T	T	.24	.78		.02	.16	T	2.61	
Wendish	Connecticut	.12	T						.05						1.08				.23	.37					T	T	.80	.17		.99			3.71	
Wells	do	.02							.04	.04	.02				.32				.18	.40							.08	.05	1.00			.32		2.92
Walling	Champlain	T	.05	T	.02	.05	T		.04	.06	.05				.68				.12	.40						.08	.05	1.00		T	.20		.10	2.87
Washburn Falls	do	T		.03	.12	.04			.04	.23	.03				.77			.08	.14	.03	.51	.02				.12	.03	1.21	1.30			.16	.06	3.83
Wade Park	do								.03	.11	.03				.47			.09								.06	.07	.01	1.07			.18	.11	2.76
Worthfield***	Champlain	T	T	T	.01	T			.01	.02	T				.32	.17	T	T	.05	.44	T	T			.10	T	.40	.85		T	.39		2.76	
Watersbury	Connecticut	.08			.02				.05	.08					2.65	.17			.87						.11	T	.28	.03	1.45		.03	.12	.21	3.03
Wilmington	do	.02	T		.02	.03			.04	.02	T				.17	.01	T		.18	.60	T				.16	.28	.03	1.45		.03	.12	.21	3.03	
Windsor	Champlain	.04							T	.33	.18				.87				.60	1.25					.16	.28	.03	1.45		.03	.12	.21	3.03	
Woodstock	do	.19							T	.33	.18				.87				.60	1.25					.16	.28	.03	1.45		.03	.12	.21	3.03	
Woodstock	Connecticut	.09	.03						.02	T	.03				.93				T	1.09	.10				.13	.09	.93		.08	.31			4.45	
Massachusetts.																																		
Worcester	Connecticut	.03				T			.12	.06					.51	.17			1.08	1.20	T	T			.19		1.20	.40		.26	.54		5.86	
Worcester	Merrimack	.02				.01			.06						*	1.45			*	1.28					.28		*	.60		.18	.70		4.67	
Worcester	do								.24						*	1.26			*	1.36					.42	T	.08	T			.42		3.81	
Worcester	do	.03				T			.10	.12					.37	.74			T	1.56					.27		T	.74		.18	.43	.06	4.60	
Worcester	Coast	.04	T	T					.12	.01	.02				.58	1.10			.06	1.44					.24	.04	.01	.94		.22	.78	.09	5.69	
Worcester	do	.01	T			T	T		.06	.02	T				1.03	.14			.16	.83					.22	.01	.43		.24	.79		</		

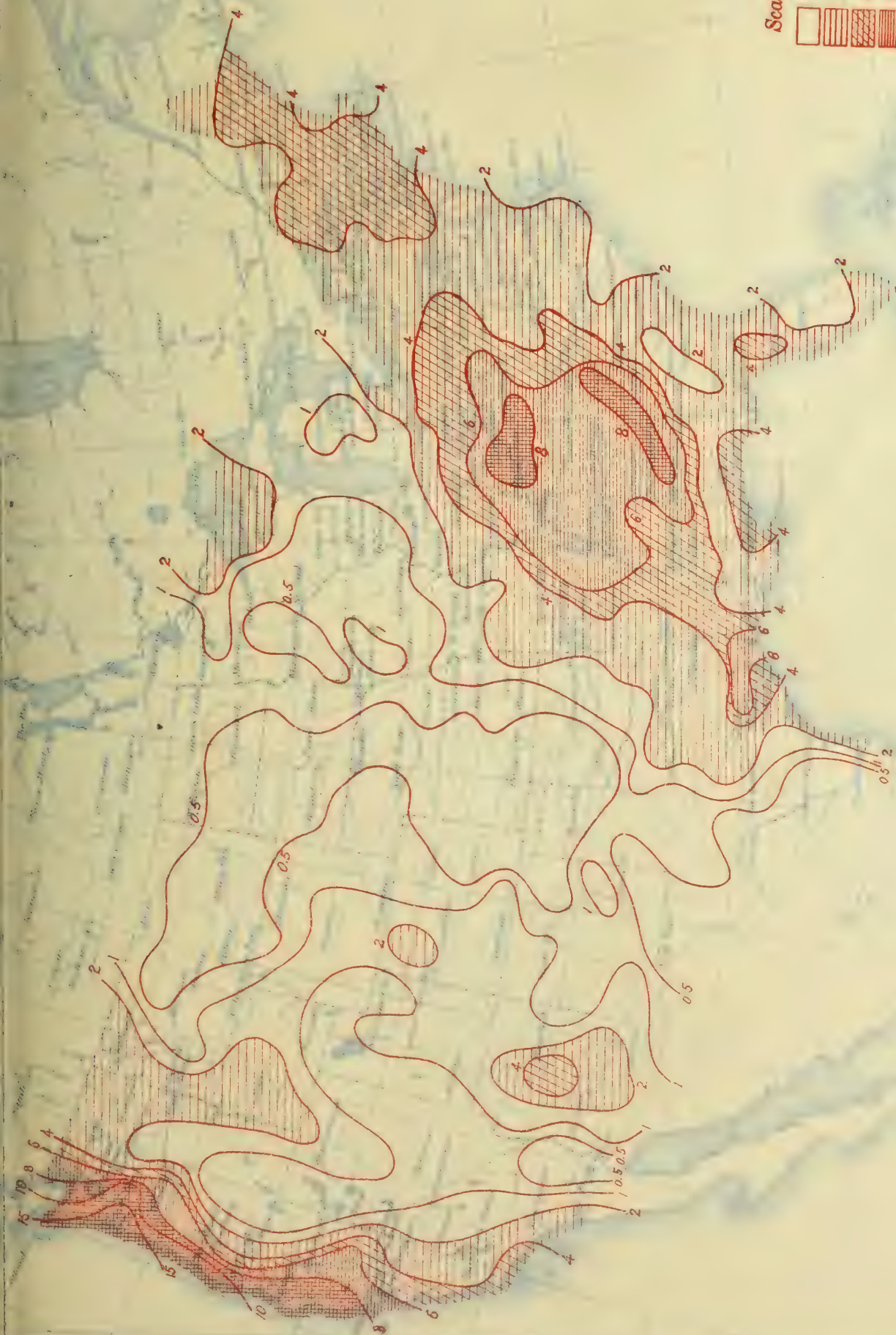
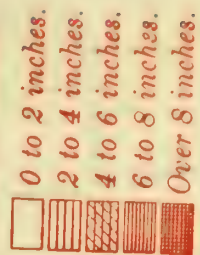


## Daily Temperatures for December, 1915.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean		
Maine.																																		
Bar Harbor	Maximum 42	40	42	38	42	35	34	34	40	32	28	35	35	37	35	26	24	30	35	36	34	36	40	43	42	50	42	36	34	30	25	53.0		
	Minimum 30	26	24	22	26	24	30	30	24	22	16	15	5	26	15	15	13	17	19	19	20	30	26	43	28	34	28	25	20	15	5	22.0		
Cornish	Maximum 47	38	44	43	44	36	39	33	35	32	36	43	32	38	33	46	30	42	46	45	35	39	40	43	46	49	37	40	33	32	36	28.5		
	Minimum 18	15	23	17	26	30	29	22	25	20	10	8	12	24	12	10	0	28	28	22	12	1	12	30	31	25	31	22	18	4	7	17.0		
Eastport	Maximum 37	36	34	39	38	34	37	38	33	29	25	39	36	46	31	26	37	45	38	37	29	29	39	41	47	58	33	37	29	19	20	34.0		
	Minimum 31	27	36	32	32	28	33	33	29	20	16	16	18	31	13	13	18	37	36	26	21	20	21	32	32	30	28	29	19	11	7	24.3		
Greenville	Maximum 32	33	30	30	32	29	29	27	26	28	16	26	25	34	23	22	24	34	34	26	21	20	23	22	26	35	38	44	29	26	16	22	27.3	
	Minimum 24	22	14	23	27	21	24	21	21	12	9	12	3	19	8	7	12	20	17	16	15	14	4	26	26	47	34	35	30	22	22	16.1		
Millinocket	Maximum 38	36	33	34	35	34	34	31	31	28	23	28	24	32	32	26	28	34	36	33	28	25	21	34	35	47	34	35	30	22	22	31.5		
	Minimum 24	23	14	28	27	25	27	26	26	17	14	13	0	15	11	4	13	23	21	15	15	17	5	17	14	32	17	25	19	8	7	17.4		
Orono	Maximum 45	39	39	36	35	35	35	35	31	31	41	35	40	35	30	37	38	36	36	36	28	41	41	41	41	45	45	35	35	25	25	25	17.4	
	Minimum 26	23	24	28	29	26	29	29	25	20	15	12	8	30	15	10	10	27	30	31	21	18	13	33	25	36	19	25	23	8	4	21.4		
Portland	Maximum 40	38	35	35	38	32	36	34	32	29	25	39	37	38	25	33	32	40	39	37	28	32	43	46	47	50	43	36	30	27	30	27	21.4	
	Minimum 28	26	29	26	30	30	30	27	24	19	16	16	21	16	17	15	32	30	27	20	12	26	33	41	47	50	43	36	30	27	30	27	21.4	
Presque Isle	Maximum 30	35	30	30	35	33	32	29	29	28	20	27	25	32	35	25	25	35	34	28	20	20	20	30	33	44	31	33	25	15	15	14.3		
	Minimum 23	23	15	15	29	24	28	24	25	18	13	9	-3	6	10	5	5	20	21	17	7	17	-2	20	23	30	31	21	12	3	0	15.4		
Rumford	Maximum 34	36	35	34	34	32	34	32	26	20	32	29	30	18	28	28	39	38	37	26	29	32	39	37	45	38	36	28	23	25	31	24	21.4	
	Minimum 24	26	26	21	28	29	30	25	24	17	16	16	11	22	12	18	11	29	28	27	18	16	16	29	29	24	22	27	20	13	9	21.4		
Van Buren	Maximum 35	29	30	40	44	35	32	29	32	29	20	25	20	35	33	25	25	33	28	25	23	20	20	34	35	44	32	32	23	16	14	28.9		
	Minimum 22	23	11	27	26	25	27	23	25	20	12	12	1	7	7	4	13	18	25	9	13	14	-3	8	22	33	12	16	8	2	-9	14.6		
New Hampshire.																																		
Alstead Center	Maximum 34	30	31	28	31	28	28	26	31	25	19	26	30	30	19	25	30	40	36	29	28	28	36	37	42	50	35	34	31	19	19	30.2		
	Minimum 21	26	23	13	23	25	22	16	25	13	9	11	16	19	12	13	30	28	23	18	23	22	33	29	24	13	28	19	12	6	19	19.0		
Bethlehem	Maximum 30	29	27	26	27	25	28	24	27	25	14	28	32	17	24	29	37	33	30	25	25	36	37	44	50	30	33	24	17	18	28.5			
	Minimum 17	19	21	15	21	21	20	16	21	10	9	4	8	17	8	9	18	26	21	22	12	14	16	30	28	17	14	24	10	0	5	16.4		
Concord	Maximum 39	33	36	35	37	34	34	30	20	18	14	13	15	20	13	18	11	32	31	18	13	21	30	29	26	23	32	21	17	11	21	34.0		
	Minimum 20	18	30	26	28	28	34	30	34	29	23	39	32	31	23	32	26	40	36	30	34	34	43	38	51	34	36	32	24	30	35.6			
Franklin	Maximum 40	32	35	34	34	33	18	25	17	13	14	14	10	20	11	15	10	26	31	21	20	15	16	30	26	27	24	21	13	8	20.0			
	Minimum 20	16	29	20	25	28	36	26	32	25	21	32	31	30	20	28	28	38	38	32	24	37	38	39	45	36	37	32	22	20	31.1			
Hanover	Maximum 38	28	35	31	32	30	22	24	16	13	7	10	19	6	14	10	28	29	25	16	8	18	32	31	25	14	30	18	5	14	18.3			
	Minimum 19	17	22	19	26	27	26	33	38	34	24	40	33	33	27	32	30	41	41	34	30	36	39	43	39	54	39	35	26	32	36.1			
Nashua	Maximum 43	34	37	38	42	36	33	20	23	19	15	9	13	23	16	16	12	29	34	24	20	16	15	30	36	32	25	31	24	18	5	21.5		
	Minimum 19	18	28	22	25	36	31	27	32	31	19	9	30	24	25	30	27	38	40	34	20	28	31	40	35	42	31	35	34	22	22	31.7		
Plymouth	Maximum 38	34	33	30	32	31	27	22	18	25	15	13	14	10	21	9	15	10	25	29	29	19	15	18	25	24	27	21	24	20	12	4	19.0	
	Minimum 19	15	26	14	25	27	22	18	25	15	13	14	10	8	10	18	10	12	11	26	20	24	19	10	20	30	28	17	28	18	8	-1	17.0	
Vermont.																																		
Burlington	Maximum 35	32	33	31	30	29	26	31	31	20	22	28	30	29	24	27	35	38	32	31	24	28	38	38	44	43	34	35	27	15	17	30.2		
	Minimum 25	24	26	25	25	26	24	23	18	15	11	11	12	9	24	16	32	24	23	18	18	28	38	34	33	22	24	27	15	4	-5	20.1		
Enosburg Falls	Maximum 28	29	33	28	28	29	26	30	24	24	20	25	32	29	24	25	30	33	33	25	25	28	40	38	31	44	34	34	28	20	-23	29.2		
	Minimum 22	17	25	13	23	23	21	22	21	12	4	-3	5	15	1	18	23	31	20	22	10	12	15	33	33	18	11	15	1	-12	-23	14.1		
Northfield	Maximum 36	30	32	20	35	28	26	27	28	19	18	25	29	20	24	28	28	25	32	24	27	36	39	45	48	30	39	27	18	17	29.7			
	Minimum 20	18	23	17	24	25	22	21	19	12	3	0	4	21	5	16	4	28	23	24	11	4	18	32	31	18	13	25	11	-9	-15	14.9		
St. Johnsbury	Maximum 37	32	34	31	31	29	31	29	21	21	13	5	3	20	6	12	17	24	22	22	16	18	32	32	25	15	27	10	2	-15	15.6			
	Minimum 10	16	27	21	25	26	24	22	28	14	13	20	25	18	18	30	20	24	28	36	34	30	26	24	38	35	44	50	30	34	30	20	12	29.2
Wells	Maximum 34	33	32	30	28	26	25	28	30	25	18	18	30	20	24	28	36	34	30	26	24	38	38	44	50	30	34	30	20	12	29.2			
	Minimum 20	20	25	19	16	16	20	22	24	10	8	10	18	10	12	11	26	20	24	19	10	20	30	28	22	17	28	18	8	-1	17.0			
Massachusetts.																																		
Amherst	Maximum 41	33	39	34	38	34	33	31	35	27	28	36	32	32	25	32	30	40	39	33	34	31	36	40	45	54	36	34	27	31	31	34.0		
	Minimum 22	23	24	1																														



Scale of Shades.





## Daily Precipitation for December, 1915—Continued from page 93.

Stations.	Watershed.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
<i>Rhode Island.</i>																																	
Block Island ***	Coast		.05						.20	.01	T			2.23	.13			.17	.51					.10	.01	T	.45		.05	1.00			4.9
Bristol	do		T						.03	.01				1.91				* 1.30						* .26	*	.46		.02	*	1.25			5.2
Greene	do								.06					2.17				1.54						.10			.43	.06		.80			5.1
Hope Valley	do																															3.3	
Kingston	do		.03						.20					2.50	.33			.49	1.03					.30		.44	.03	.07	.93			6.3	
Narrag'sett Pier***	do		.05				T		.19		.05			1.30	.62			.19	.90					.14		T	.42	.06	.98	.03		4.9	
Pawtucket	do		T						.05	T				* 1.70				* 1.52					T		*	.28	*	.49	.12	.98			5.1
Providence**	do		T						.06	T				.99	.05			.10	1.17		T	T		.23		.01	.47	.09	.63			3.8	
Wallum Lake	do								.02					.60				.48	.98					.23		.70	.10		.40			3.5	
<i>Connecticut.</i>																																	
Bridgeport	Coast													2.04	T			.20	1.30					.05			1.85		.10			5.5	
Canton	Connecticut	T												* 1.95				.17	1.53				T	.13	T	1.00		T	.82			5.7	
Colchester	Coast		.03						.10					1.90	.80			.09	1.75						.02	1.90		.50	.40			7.5	
Cream Hill	Housatonic								.15					1.50				* 1.50						.50		.20						3.1	
Danielson	Coast		.05						.20					3.08	1.00			.25	1.85				.10		1.50	.14	.25	.50			8.8		
Falls Village	Housatonic		T						T	T				1.23	.05			.20	1.44			T		.05	T	.02	.84	.07	.84	T		4.7	
Hartford**	Connecticut		T	T					.04	T	T																						4.7
Hawleyville	Housatonic																	1.85		1.53				.05			.65		.75			5.0	
Lake Konomocoff	Coast								.18					2.75	.05	T		.22	1.11					.01		T	.75		.04	.72			5.7
New Haven***	do		.01					T	T	.12	T			.70	1.30			1.40					.01		.03	.40		.65		.75			4.7
New London	do		.10						.13		T			.29	.46			.17	1.06					.13			.93		.09	.68	.06		4.4
N. Grosvenor Dale	do		.02						.08					* 2.03				* 1.46								.71		*	.62	*			4.7
Norwalk	do								.12					1.00	1.50			T	1.55				.05		T	1.00		T	.45	.25			5.9
Southington	do		T						.10									* 1.57					.11		T	.75							2.2
Storrs	Coast			.03					T																								4.4
Torrington	Housatonic																	*	* 1.34				*	.10	*	.45		*	.06	.60			7.0
Voluntown	Coast		*	.05							.10							1.72					*			.50	.20	.20					6.3
Wallingford	do		.02				T							3.78					2.25						.02								6.3
Waterbury	Housatonic		T				T	T	.10									* 2.75		* 1.60													

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight. \* Precipitation indicated in that of following day.

T. Precipitation is less than 0.01 inch rain or melted snow.  
 † Post-office addresses of these stations are as follows: Bikers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Asaburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.

## Comparative Data for New England for December.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.								
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888....	30.3	69	-15	4.46	10	4.6		9	10	12	....	nw.	12.2	70	ne.	1902....	23.0	61	-30	5.32	2.65	13	24.2	12	7	12	50	nw.	10.2	73	ne.
1889....	33.8	71	-22	3.09	14	6.7		10	10	11	....	nw.	11.4	60	ne.	1903....	22.3	57	-24	3.18	2.75	10	13.0	12	8	11	51	w.	11.6	69	s.
1890....	21.1	58	-36	4.12	12	18.2		10	10	10	....	nw.	12.0	82	ne.	1904....	18.3	61	-34	2.40	1.77	9	16.1	11	9	11	44	nw.	10.1	64	n.
1891....	35.9	67	-8	4.07	11	2.3		12	8	15	....	nw.	12.5	63	se.	1905....	28.6	62	-28	3.59	3.45	8	9.3	12	12	45	nw.	9.8	64	nw.	
1892....	24.9	58	-17	1.32	10	5.1		10	10	11	....	nw.	10.8	70	s.	1906....	22.7	55	-30	3.59	2.54	11	15.6	8	6	17	31	nw.	10.4	63	nw.
1893....	25.5	62	-36	2.94	16	20.5		9	9	13	....	nw.	12.2	61	w.	1907....	30.7	75	-14	4.29	2.51	9	10.2	11	8	12	43	nw.	10.8	70	e.
1894....	27.3	59	-32	3.62	11	16.6		11	10	16	55	nw.	11.3	72	se.	1908....	26.2	68	-39	3.15	2.63	10	11.8	12	8	11	43	nw.	11.0	74	s.
1895....	29.8	71	-20	3.35	9	5.7		9	9	13	50	n.	13.9	81	ne.	1909....	25.5	62	-23	2.91	3.08	6	14.1	15	8	8	49	nw.	12.0	72	ne.
1896....	24.6	59	-21	1.68	7	8.7		13	8	10	55	n.	11.8	80	ne.	1910....	21.4	57	-21	2.56	1.92	9	9.8	12	8	11	42	nw.	11.9	64	nw.
1897....	28.4	64	-18	4.78	3.88	13	9.7	7	8	16	38	nw.	11.9	59	e.	1911....	32.9	68	-13	3.13	3.20	8	6.4	11	7	13	39	nw.	11.1	67	w.
1898....	26.4	58	-30	2.43	2.43	9	9.4	11	9	11	44	nw.	10.8	72	e.	1912....	31.7	69	-15	4.34	2.05	8	8.6	13	7	11	50	sw.	11.9	65	s.
1899....	30.4	68	-16	2.10	1.33	8	3.0	13	8	10	48	nw.	11.1	68	e.	1913....	31.3	63	-23	3.24	2.52	7	9.5	13	7	11	46	nw.	11.1	62	w.
1900....	26.0	61	-28	2.27	2.75	6	6.8	12	9	10	50	nw.	10.5	84	e.	1914....	24.4	67	-42	3.04	2.82	9	6.9	13	7	11	45	nw.	11.8	71	ne.
1901....	26.9	67	-28	7.59	4.93	12	17.7	10	8	13	43	nw.	11.1	77	ne.	1915....	27.4	62	-23	4.34	2.75	11	15.8	10	6	15	39	nw.	12.3	86	w.



U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU

CHARLES F. MARVIN, CHIEF

FEB 27 1916

# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

ANNUAL, 1915

BY

JOHN W. SMITH

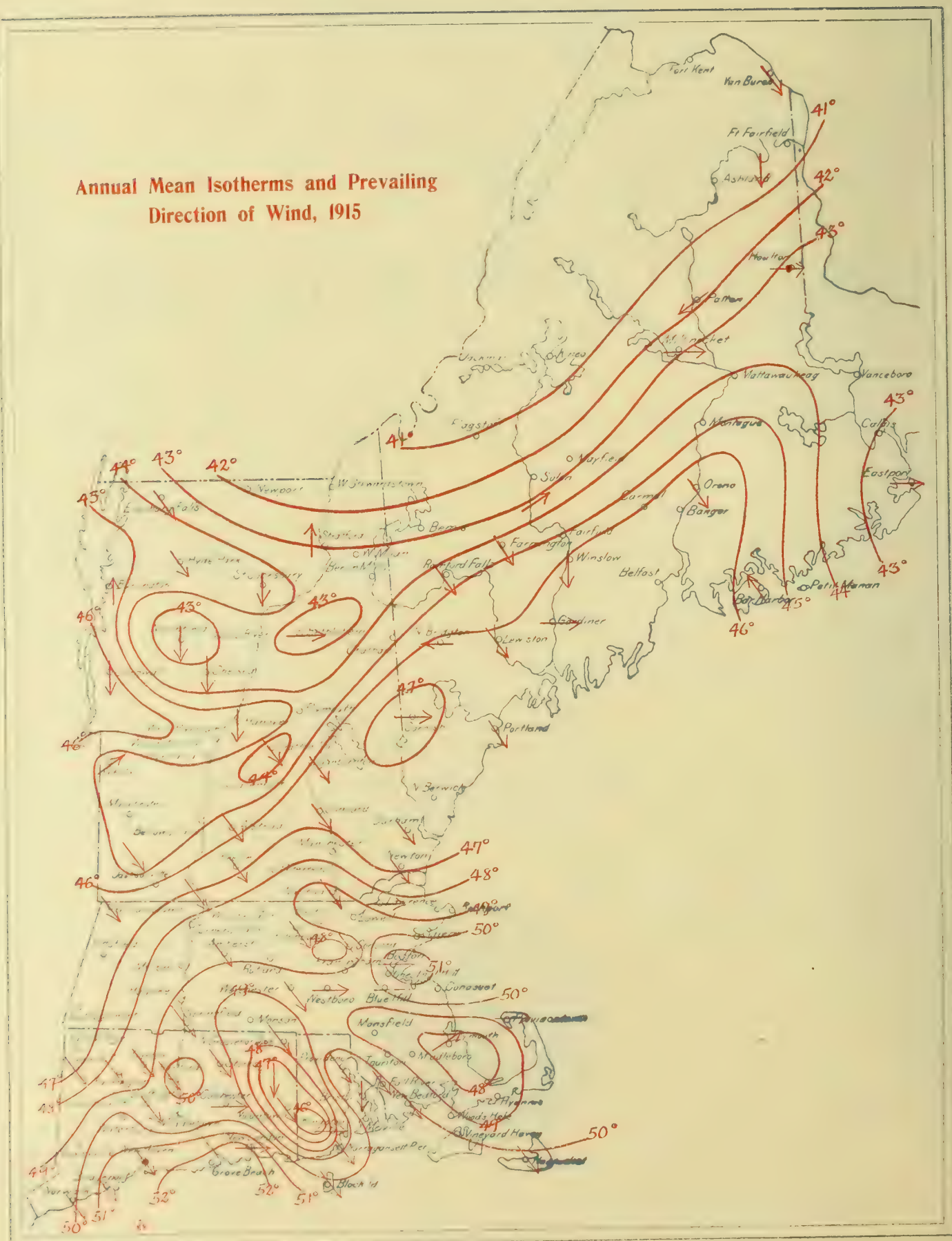
DISTRICT FORECASTER AND SECTION DIRECTOR



BOSTON, MASS.  
WEATHER BUREAU OFFICE  
FEBRUARY 7, 1916



Annual Mean Isotherms and Prevailing Direction of Wind, 1915





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, District Forecaster and Section Director.

VOL. XXVII. BOSTON, MASS., ANNUAL, 1915. No. 13.

## GENERAL SUMMARY.

The marked feature of the year was the abnormal distribution of precipitation during the growing season, the spring being the dryest and the summer the wettest in the record of the section averages extending back to 1888. The average rainfall for March, 0.21 inch, was without doubt one of the smallest, if not the smallest, of record for any calendar month in this section. The rainfall continued below the normal during April, May and June, the average for the four months, March to June, inclusive, being only 6.75 inches, which was 6.88 inches below the normal amount for this period. Owing, however, to the moderately cool temperatures that prevailed and the absence of drying winds, the drought was not as injurious as it would otherwise have been. During July and August the precipitation was much above the normal, and rain fell nearly every day in some portion of the section. The average for the section for the two months was 13.10 inches, which was 5.69 inches above the normal. The fall months were unusually pleasant, being warmer than usual, with less than the average amount of rainfall. The winter months, January, February and December, were also warmer than normal, with more than the average amount of precipitation. For the year as a whole, the temperature was somewhat above and the precipitation below the normal, with less than the usual amount of snowfall. There was an average amount of sunshine and clear weather. The extremes in temperature were not as great as usual. The annual mean temperature (entire district),  $46.8^{\circ}$ , was  $0^{\circ}$  above the normal, based on stations having ten or more years' records, and  $1.8^{\circ}$  above the mean of the year 1914.

Annual means by states: Maine,  $44.2^{\circ}$ ; New Hampshire,  $45.7^{\circ}$ ; Vermont,  $44.6^{\circ}$ ; Massachusetts,  $49.0^{\circ}$ ; Rhode Island,  $49.0^{\circ}$ ; Connecticut,  $49.4^{\circ}$ .

The highest annual mean,  $52.4^{\circ}$ , at New London, Conn.; lowest annual mean,  $40.6^{\circ}$ , at Presque Isle, Me. Highest recorded,  $96^{\circ}$ , at Nashua, N. H., on September 15-16; lowest recorded,  $-38^{\circ}$ , at Bloomfield, Vt., on January 30. Annual range for New England,  $134^{\circ}$ ; greatest local annual range,  $127^{\circ}$ , at Enosburg Falls, Vt.; least local annual range,  $67^{\circ}$ , at Nantucket, Mass.; greatest local daily range,  $54^{\circ}$ , at Patten, Me., on February 1.

The annual average precipitation (entire district), 40.51 inches, was 2.61 inches below the normal, based on stations having ten or more years' records, and 5.44 inches above the average for the year 1914.

Annual State averages: Maine, 38.45 inches; New Hampshire, 39.73 inches; Vermont, 36.06 inches; Massachusetts, 42.72 inches; Rhode Island, 40.03 inches; Connecticut, 45.04 inches.

The greatest annual amount, 57.53 inches, at Somerset, Vt.; least annual amount, 23.96 inches, at Cornwall, Vt. Greatest monthly fall, 12.72 inches, at Lawrence, Mass., in July; least monthly fall, none, at Rockport, Mass., in March; greatest fall in any 24 consecutive hours, 4.86 inches, at Norfolk, Mass., on July 1. Average number of days with 0.01 inch or more, 115.

Average annual mean pressure, 29.99 inches. Highest recorded, 30.70 inches, at Burlington, Vt., on February 19; lowest recorded, 28.74 inches, at Providence, R. I., on December 14. Annual range for New England, 1.96 inches.

Prevailing direction of wind, northwest; maximum velocity, 86 miles per hour, on December 26, at Blue Hill Observatory, Hyde Park, Mass., and Block Island, R. I.

## THE WEATHER BY MONTHS.

JANUARY was mild for the season, with comparatively few days of mean temperature below the normal. Temperatures near or below zero occurred only at a few scattered stations, except on the 4th and 5th and on the 30th and 31st, when minima below zero prevailed in the northern portion of the section. The precipitation, with one exception, was the greatest for any January of record. The snowfall was moderate, only a few inches falling at anytime. In the northern portion of the section there was from 6 to 18 inches on the ground at the close of the month.

FEBRUARY.—Mild weather for the season, with precipitation above the normal, and less than the usual amount of snowfall prevailed through February. Minimum temperatures of zero or below occurred only at scattered stations and were generally confined to the first week. The precipitation was the greatest for the month since 1909. A fairly heavy snowfall occurred in the interior during the first three days of the month; afterward there was no considerable amount until the 26th, when several inches fell in the northern states. There was little snow on the ground in the southern states after the first decade; in the northern portion of the section it accumulated to between 20 and 30 inches during the first week, afterwards diminishing to between 6 and 12 inches at the close of the month. Some damage was caused by floods and ice gorges in the rivers in New Hampshire and Vermont on the 24-25th.

MARCH.—The marked feature was the very small amount of precipitation which, it is probable, was less than previously recorded in any calendar month in this section. The average for the section was only 0.21 inch, which was 0.47 inch below that of May, 1903, the lowest average for any month heretofore. At New Bedford, Mass., where observations have been taken since 1814, the least monthly amount previous to that of March, this year, 0.10 inch, was 0.24 inch in August, 1854. At Boston, Mass., in authentic records extending back to 1818, the least amount was 0.20 inch in April, 1844, until the present month, when only a trace fell. Snow remained on the ground in the northern portions of the northern states through the month, the depth diminishing from between 10 and 20 inches at the beginning to between 1 and 10 inches at the end of the month. The number of clear days and the amount of sunshine were greater than in any previous March of record.

APRIL.—The month was much warmer than usual, the average temperature being the highest, with one exception, for any April since 1888. The precipitation was below the normal, and the least for the month for several years. An unusually heavy snowstorm for the season occurred on the 3d, from 6 to 13 inches falling in the greater portion of all of the states except Vermont, where only small amounts occurred. The snow melted rapidly and disappeared within a few days. At the close of the month the season was somewhat more advanced than usual.

MAY.—The average temperature, with one exception, was the lowest of any May since 1888. Killing frosts were general over the greater part of the interior and northern portions of the section on the 27th and 29th, doing considerable damage to garden truck and cranberry bogs. In some localities the ground was frozen, and ice formed one-fourth of an inch in thickness. The precipitation was below the normal throughout the section.

JUNE.—Much the same conditions prevailed during June as in the preceding month, the temperature being much below the normal, and precipitation deficient. The nights were cool, and on the 3d minimum temperatures below the freezing point were general in Maine and New Hampshire. Severe thunderstorms on the 26th and 27th caused much damage in some localities by lightning, heavy rain and hail, particularly in parts of Rhode Island and southeastern Massachusetts. In the vicinity of Bristol, R. I., glass was broken in buildings and greenhouses, and gardens and orchards destroyed. Many of the stones were reported to have been nearly as large as hen's eggs, and to have accumulated to several inches in depth.



**JULY.**—The rainfall was unusually heavy, and the average temperature below the normal. The storm of the 8-9th was exceptionally severe for the season, with a very heavy rainfall and high winds on the coast. More than six inches fell at some points during the night of the 8th. Much damage was done to highways and growing crops. Floods and washouts occurred in the Connecticut valley, damaging highways and railroads, and covering meadows along the river with mud.

**AUGUST.**—Heavy rainfall continued in August, with temperature below the normal for the season. Light frosts occurred in some localities in the northern states on the 28th, but caused no material damage. The amount of sunshine received was the least for any August since the beginning of automatic records in 1894.

**SEPTEMBER.**—The rainfall was less than usual, and the temperature above the normal, which conditions were of much benefit to late crops that had been retarded by the low temperature, excessive rainfall, and absence of sunshine of the preceding two months. A severe gale on the 26th and 27th greatly damaged fruit and corn.

**OCTOBER.**—Generally mild and pleasant weather prevailed, with conditions favorable for harvesting and outdoor work. Killing frosts occurred later than usual.

**NOVEMBER.**—Mild and pleasant weather for the season continued through November. At no time was there any considerable frost in the ground. Several inches of snow fell in the northern portions of the section, but which nearly all disappeared before the end of the month.

**DECEMBER.**—The average temperature was above the normal, with no extreme low temperatures until the 30th and 31st, when minima from 0° to -23° occurred in Vermont, western and northern New Hampshire and northern Maine. The greater portion of the precipitation was in the form of snow, except in the southeast portion of the section. At the close of the month from 3 to 15 inches of snow remained on the ground, except in the southeastern coast sections, where there was little or none.

## KILLING FROSTS.

Stations.	Last in spring.	First in autumn.	Stations.	Last in spring.	First in autumn.
<i>Maine.</i>			<i>Massachusetts—Continued.</i>		
Bar Harbor.....	June 3	Oct. 11.	Boston.....	Apr. 4	Nov. 18.
Cornish.....	June 3	Oct. 1.	Chestnut Hill.....	Apr. 22	Oct. 21.
Eastport.....	Apr. 22	Oct. 23.	Clinton.....	May 26	Oct. 24.
Fairfield.....	June 3	Oct. 23.	Concord.....	May 30	Oct. 1.
Farmington.....	June 3	Oct. 1.	Fall River.....	Apr. 5	Oct. 11.
Gardiner.....	June 3	Oct. 1.	Fitchburg.....	Apr. 5	Oct. 11.
Greenville.....	May 30	Aug. 28.	Framingham.....	Apr. 22	Oct. 10.
Houlton.....	May 27	Oct. 2.	Lawrence.....	Apr. 9	Oct. 11.
Lewiston.....	Apr. 22	Oct. 11.	Lowell.....	Apr. 22	Oct. 11.
Madison.....	June 3	Sept. 27.	Middleboro.....	May 30	Oct. 11.
Millinocket.....	May 30	Aug. 28.	Nantucket.....	Mar. 31	Dec. 2.
North Bridgton.....	June 3	Oct. 11.	New Bedford.....	Apr. 5	Oct. 11.
Orono.....	June 3	Sept. 26.	Norfolk.....	May 31	Sept. 23.
Portland.....	Apr. 7	Nov. 6.	Plymouth.....	Apr. 22	Oct. 24.
Presque Isle.....	June 2	Aug. 28.	Provincetown.....	Apr. 4	Nov. 18.
Rumford Falls.....	May 30	Oct. 11.	Rockport.....	Apr. 5	Nov. 17.
Van Buren.....	June 2	Aug. 28.	Rutland.....	May 26	Oct. 22.
Winslow.....	June 3	Oct. 1.	Turners Falls.....	Apr. 22	Oct. 11.
<i>New Hampshire.</i>			<i>Westboro.....</i>		
Alstead Center.....	May 27	Sept. 30.	Williamstown.....	Apr. 22	Oct. 11.
Bethlehem.....	June 3	Oct. 10.	Worcester.....	Apr. 5	Oct. 25.
Concord.....	June 3	Oct. 10.	<i>Rhode Island.</i>		
Durham.....	May 30	Oct. 11.	Block Island.....	Apr. 5	Dec. 4.
Franklin.....	June 3	Oct. 10.	Bristol.....	Apr. 5	Nov. 18.
Glenciff.....	May 30	Sept. 28.	Kingston.....	Apr. 22	Sept. 28.
Grafton.....	June 4	Sept. 23.	Narragansett Pier.....	May 22	Oct. 24.
Hanover.....	June 3	Sept. 23.	Providence.....	Apr. 5	Nov. 7.
Keene.....	June 4	Sept. 23.	<i>Connecticut.</i>		
Nashua.....	Apr. 22	Oct. 10.	Bridgeport.....	Apr. 5	Oct. 24.
Newton.....	June 4	Oct. 1.	Canton.....	Apr. 22	Oct. 11.
Plymouth.....	June 3	Oct. 1.	Colchester.....	Apr. 22	Oct. 11.
<i>Vermont.</i>			Cream Hill.....	May 27	Oct. 11.
Bloomfield.....	June 3	Sept. 23.	Danielson.....	Apr. 5	Oct. 11.
Burlington.....	Apr. 22	Oct. 10.	Hartford.....	Apr. 16	Oct. 11.
Chelsea.....	June 3	Sept. 23.	Hawleyville.....	Apr. 4	Nov. 7.
Cornwall.....	Apr. 22	Oct. 11.	New Haven.....	Apr. 5	Nov. 14.
Enosburg Falls.....	May 30	Aug. 27.	New London.....	May 16	Sept. 23.
Northfield.....	June 3	Sept. 23.	N. Grosvenor Dale.....	Apr. 22	Oct. 11.
Somerset.....	Apr. 13	Oct. 23.	Norwalk.....	May 16	Oct. 11.
St. Johnsbury.....	May 30	Sept. 23.	Southington.....	Apr. 22	Oct. 11.
Wells.....	May 27	Sept. 28.	Storrs.....	May 30	Oct. 11.
Woodstock.....	June 3	Aug. 28.	Torrington.....	May 30	Oct. 11.
<i>Massachusetts.</i>			Voluntown.....	May 31	Sept. 23.
Amherst.....	Apr. 22	Oct. 11.	Waterbury.....	Apr. 22	Oct. 11.
Blue Hill.....	Apr. 5	Oct. 25.			

## COMPARATIVE DATA FOR NEW ENGLAND.

Year.	Temperature.			Precipitation.			Weather.				Wind.				
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888.....	44.3	101	-44	56.19	147	75.4	109	131	126	....	nw.	10.4	84	ne.	
1889.....	48.6	98	-44	49.37	138	44.4	104	115	146	....	sw.	10.2	78	ne.	
1890.....	46.3	100	-36	50.33	147	59.6	107	123	135	....	nw.	10.9	82	ne.	
1891.....	47.4	101	-30	44.95	133	53.0	116	121	128	....	nw.	10.5	72	ne.	
1892.....	45.8	102	-30	38.79	127	53.2	124	110	102	....	nw.	10.6	77	ne.	
1893.....	44.6	102	-39	40.14	136	90.2	126	113	126	....	nw.	10.4	88	se.	
1894.....	46.7	106	-42	35.85	127	80.9	122	114	129	53	sw.	10.0	87	e.	
1895.....	46.1	100	-29	41.27	122	45.0	130	115	120	54	sw.	10.6	81	se.	
1896.....	47.4	100	-27	40.97	8.31	127	67.9	121	112	133	48	sw.	11.8	80	ne.
1897.....	46.4	102	-29	46.79	8.11	122	64.7	131	100	134	47	nw.	11.4	70	ne.
1898.....	47.2	103	-39	50.66	6.22	129	86.1	130	102	133	48	nw.	10.3	97	ne.
1899.....	46.1	101	-32	40.40	6.50	110	69.3	153	98	114	55	nw.	10.3	78	w.
1900.....	47.5	105	-30	45.69	5.75	106	66.1	144	90	131	53	nw.	10.4	81	ne.
1901.....	45.6	104	-31	47.92	5.29	114	56.5	143	98	123	51	nw.	10.1	73	ne.
1902.....	46.0	96	-30	46.94	4.43	124	67.9	149	92	157	89	nw.	9.7	72	e.
1903.....	45.8	100	-37	41.78	5.15	116	79.5	153	95	118	56	nw.	9.6	84	nw.
1904.....	42.8	98	-44	40.05	6.15	110	73.1	157	96	112	60	nw.	9.6	84	se.
1905.....	44.4	98	-45	36.96	5.19	106	53.1	151	94	120	54	sw.	9.7	68	se.
1906.....	46.4	102	-36	40.55	5.19	111	70.1	137	102	126	50	nw.	9.9	77	nw.
1907.....	44.1	106	-45	43.24	5.51	117	80.5	171	93	102	57	nw.	10.3	84	se.
1908.....	46.7	101	-39	35.62	5.23	112	55.6	153	99	113	51	nw.	10.2	90	se.
1909.....	46.0	100	-32	40.56	5.26	112	53.6	153	98	114	52	nw.	10.4	78	se.
1910.....	46.5	99	-31	35.52	5.04	111	55.2	158	91	116	53	nw.	10.6	70	ne.
1911.....	46.5	106	-33	38.76	6.64	112	54.9	161	95	110	56	nw.	10.7	79	se.
1912.....	45.4	101	-39	41.88	4.88	110	54.9	161	86	118	54	sw.	10.8	70	sw.
1913.....	48.0	102	-36	40.52	4.99	109	29.8	154	95	116	53	nw.	10.8	88	w.
1914.....	45.0	99	-44	35.07	5.72	104	58.3	154	99	118	52	nw.	10.4	86	w.
1915.....	46.8	96	-38	40.51	4.86	115	46.0	148	99	118	52	nw.	10.4	97	ne.
Means	46.1	106	-45	42.40	8.31	120	61.4	140	103	122	53	nw.	10.4	97	ne.

## Monthly Averages and Extremes, 1915.

Jan.	25.8	62	-38	5.82	3.85	12	12.1	11	7	13	44	sw.	10.7	78	ne
Feb.	28.2	64	-32	4.14	2.83	10	5.3	10	6	12	49	nw.	11.5	59	nw
March.	30.7	62	-10	0.21	0.55	3	1.7	18	8	5	74	nw.	12.7	71	nw
April.	48.0	93	15	2.24	2.23	8	5.2	11	9	10	51	nw.	10.9	79	nw
May.	52.8	86	22	2.22	2.20	10	0	12	9	10	56	nw.	10.1	50	nw
June.	62.5	94	28	2.08	4.19	9	0	12	11	7	56	s.	8.8	49	ne
July.	67.8	94	37	7.49	4.86	15	0	12	12	9	52	sw.	7.8	51	ne
Aug.	65.9	95	30	5.61	4.00	13	0	10	10	11	46	sw.	8.5	48	se
Sept.	63.4	96	25	1.79	2.78	6	0	17	7	6	63	nw.	9.4	62	nw
Oct.	51.3	82	1	2.77	2.10	9	0	13	7	11	50	sw.	10.2	60	ne
Nov.	39.6	73	-23	2.52	2.40	9	1.3	13	7	10	47	nw.	12.2	70	ne
Dec.	27.4	62	-38	4.34	2.75	11	15.8	10	6	15	39	nw.	12.3	86	e.w.
Means	46.8	96	-38	40.51	4.86	115	46.0	148	99	118	52	nw.	10.4	86	w

## SUPPLEMENTAL RAINFALL DATA, 1915.

Stations.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Av.
<i>Maine.</i>													
Ashland	1.98	3.38	0.59	1.84	4.20	1.33	.....	.....	3.10	2.20	2.26	2.96	.....
Cambridge	2.53	4.22	0.03	3.21	3.44	1.31	.....	.....	.....	.....	2.20	4.23	.....
Danforth	3.85	3.92	0.54	2.27	3.90	3.11	5.26	2.75	1.07	2.03	2.42	3.17	3.17
Eustis	2.60	2.54	0.11	2.36	1.69	1.66	7.11	3.44	2.43	1.48	1.95	3.91	3.11
Howe Brook	1.84	2.98	0.52	2.07	4.41	2.07	3.86	3.81	3.04	2.34	2.11	1.75	1.75
Oquossoc	.....	1.15	T.	2.20	1.30	2.05	9.40	6.35	2.95	1.80	1.70	1.39	.....
<i>New Hampshire.</i>													
Brookline	4.95	3.60	0.02	2.48	1.61	2.29	8.91	7.04	1.19	2.98	3.46	3.80	4.22
<i>Massachusetts.</i>													
Ashland	6.63	3.44	0.06	2.42	1.94	3.66	7.51	5.40	1.29	2.74	2.75	4.67	4.67
Bakers Bridge	4.84	3.51	T.	1.44	1.93	1.87	10.35	5.76	0.96	3.58	2.79	3.78	3.78
Bedford	4.45	3.62	T.	1.59	1.56	1.51	10.69	5.36	1.24	2.87	2.65	4.60	4.60
Brockton	6.49	3.45	T.	1.41	2.87	2.51	4.50	4.14	0.39	2.40	2.30	4.67	4.67
Haverhill	3.24	2.75	0.01	1.00	1.59	1.62	10.93	5.88	0.60	2.82	3.23	2.88	2.88
Hingham	7.66	3.86	T.	2.21	2.16	1.64	6.32	5.85	0.70	2.67	2.50	4.63	4.63
Jefferson	7.83	3.88	0.08	2.09	1.84	2.30	7.92	7.21	1.50	3.20	3.39	6.50	6.50
Lake Cochituate	6.57	3.88	0.01	2.82	1.59	3.51	8.38	5.72	0.88	2.93	2.58	5.48	5.48
Leominster	5.87	3.71	0.02	1.73	1.61	1.64	9.61	7.41	1.58	2.81	3.01	4.57	4.57
Princeton	5.63	2.51	0.07	1.93	1.61	2.02	2.49	2.78	4.76	1.51	2.98	3.16	4.93
Somerset	8.16	3.96	0.03	1.61	2.02	5.24	8.48	8.29	0.84	3.08	2.46	5.30	4.93
Spot Pond	6.42	3.49	0.04	3.33	1.54	5.24	8.57	6.14	1.74	2.91	2.97	5.05	4.42
Sterling	5.48	3.29	0.05	1.70	1.55	2.78	8.58	5.47	1.79	3.01	3.32	6.69	4.42
Taunton	9.93	4.24	0.05	1.86	2.74	1.35	4.26	5.47	1.79	3.01	3.38	6.69	4.42
Winchendon	5.40	4.25	0.05	4.01	1.59	1.94	8.88	5.43	1.20	3.03	2.82	5.96	4.42
<i>Rhode Island.</i>													
Greene	8.59	4.79	0.08	1.26	2.10	1.21	5.59	6.34	1.11	.....	2.84	5.16	.....
Hope Valley	10.74	4.85	.....	1.50	.....	1.35	3.25	8.00	1.18	3.19	3.26	5.30	.....
Pawtucket	7.72	3.23	0.08	2.32	1.99	2.29	8.15	5.62	0.84	2.17	2.20	5.14	.....
Wallum Lake	7.14	5.46	0.17	1.87	3.47	2.27	8.69	6.46	0.92	3.21	2.61	3.51	4.42
<i>Connecticut.</i>													
Falls Village	5.77	5.54	0.12	2.56	2.90	4.65	7.97	7.41	3.74	1.96	2.07	8.89	.....
Lake Konomoc	10.75	6.36	0.28	1.50	3.10	0.74	3.09	8.66	1.14	4.00	1.45	5.10	.....
Wallingford	8.83	.....	0.12	2.22	2.56	3.46	3.35	6.27	2.15	2.01	2.08	7.05	.....



## Climatological Data for the Year 1915.

Stations.	Counties.	Elevation, feet.	Temperature (degrees Fahrenheit).						Precipitation (Inches).						Number rainy days.	Sky.			Prevailing direction of wind.	
			Length of record, years.	Annual mean.	Highest.	Date.	Lowest.	Date.	Length of record, years.	Total for the year.	Greatest monthly.	Month.	Least monthly.	Month.		Total snowfall.	Number clear days.	Number partly cloudy days.		Number cloudy days.
Maine.																				
Bar Harbor §	Hancock	20	29						30											
Cornish	York	778	60	47.2	92	Sept. 16	-23	Jan. 30	60	43.73	10.42	July	0.21	Mar.	51.0	109	128	102	135	ne.
Eastport	Washington	53	43	42.6	81	Aug. 12	-9	Jan. 30	43	34.59	5.80	Jan.	0.57	Mar.	43.4	143	73	108	184	s.
Fairfield	Somerset	90	30	44.8	85	Sept. 13	-23	Jan. 31	30	31.44	7.78	July	0.13	Mar.	31.7	60				
Farlington	Franklin	450	18	44.4	89	Aug. 12*	-16	Jan. 31	25	39.10	7.54	July	0.13	Mar.	51.5	120	132	120	113	nw.
Gardiner §	Kennebec	163	23	43.8	88	Sept. 16	-16	Jan. 31	23	38.35	9.17	July	0.12	Mar.	31.5	127	194	40	131	nw.
Greenville	Piscataquis	1,140	11	41.0	87	Sept. 16	-18	Jan. 30*	11	44.19	8.98	July	0.24	Mar.	70.5	143				
Houlton	Aroostook	362	13	43.5	88	July 22	-26	Jan. 31	13	26.34	4.19	May	0.35	Mar.	75.0	63	167	82	116	w.
Lewiston	Androscoggin	185	32	45.6	90	Sept. 16	-14	Jan. 31	42	41.53	9.52	July	0.17	Mar.	47.6	129	125	125	115	nw.
Nadison §	Somerset	257	12	43.1	88	July 14	-29	Jan. 31	12	41.73	7.98	July	0.31	Mar.	42.5	130	210	43	112	ne.
Millinocket	Penobscot	386	12	43.3	86	Aug. 11*	-17	Jan. 1*	12	38.83	5.48	July	0.11	Mar.	55.4	139	169	38	158	w.
North Bridgton	Cumberland	450	22	46.5	90	Sept. 15*	-17	Jan. 31	22	43.30	11.03	July	0.07	Mar.	53.5	123	122	142	101	s.
Orono §	Penobscot	129	46	46.5	89	July 19*	-21	Jan. 31	47	38.89	6.67	July	0.34	Mar.	49.1	113	177	67	119	sw.
Portland	do	550	13	41.5	89 <sup>d</sup>	June 29*	-32 <sup>d</sup>	Feb. 1	13	37.70	6.30	July	0.30	Mar.	45.0	56				ne.
Presque Isle	Cumberland	99	44	46.3	89	Sept. 17	-5	Jan. 30	45	43.44	10.84	July	0.09	Mar.	51.0	126	143	87	135	s.
Sumford §	Aroostook	1,000	6	40.6	88	July 19	-35	Jan. 31	6	35.52	4.10	Feb.	1.40	Mar.	103.0	105	157	89	119	w.
Woodville	Piscataquis	300	22	44.7	90	Sept. 15	-12	Jan. 31	22	39.02	8.38	July	0.21	Mar.	54.0	113	218	66	81	nw.
Wiscasset	Aroostook	510	11																	
Wiscasset	Kennebec	90	20	46.4	90	Sept. 16	-36	Jan. 31	11	35.69	5.14	May	1.08	June	77.8	127				nw.
	do						-19	Jan. 31	20	38.73	9.16	July	0.18	Mar.	36.0	90	176	76	113	w.
New Hampshire.																				
Alstead Center	Cheshire	1,120	11	45.6	86	Sept. 15	-11	Jan. 30	11	44.87	11.07	July	0.40	Mar.	74.5	126	219	64	82	nw.
Bethlehem	Grafton	1,470	23	42.6	87	Sept. 15	-25	Jan. 30	23	33.48	7.16	July	0.47	Mar.	51.5	140	168	74	123	w.
Concord	Merrimac	350	55	46.9	92	Sept. 15	-13	Jan. 31	55	38.51	10.29	July	T.	Mar.	35.4	118	151	91	123	nw.
Durham §	Stafford	88	20						21											
Franklin	Merrimac	440	16	46.6	91	June 14*	-16	Jan. 31	16	44.29	11.70	July	0.06	Mar.	47.0	132	157	108	100	nw.
Greenville	Grafton	1,650	2						6											
Haverhill	do	863	29	43.7	91	Sept. 15	-23	Jan. 30	29	33.91	9.35	July	0.02	Mar.	55.0	99	211	51	103	nw.
Haverhill	do	603	81	45.5	91	Sept. 15	-21	Jan. 30	75	36.75	9.69	July	0.03	Mar.	52.7	138	100	92	173	n.
Haverhill	Cheshire	506	30	46.2	90	Sept. 15	-15	Jan. 30	28	43.79	11.09	July	0.04	Mar.	48.0	122	146	112	107	nw.
Haverhill	Hillsboro	125	30	49.1	96	Sept. 15*	-4	Jan. 30*	30	40.81	8.89	July	T.	Mar.	34.1	102	85	164	116	nw.
Haverhill	Rockingham	126	27	46.0	91	Sept. 15*	-5	Jan. 30	27	40.66	11.47	July	0.16	Mar.	27.0	91	128	168	68	nw.
Haverhill	Grafton	500	27	44.9	88	Sept. 15	-14	Jan. 31	28	40.22	8.71	July	0.16	Mar.	48.2	117	173	17	175	w.
Vermont.																				
Academus	Essex	404	8	42.2	88	Sept. 15	-38	Jan. 30	7	40.94	11.93	July	0.41	Mar.	61.6	142	155	73	137	s.
Academus	Chittenden	404	8	45.2	92	Sept. 15	-18	Jan. 30	9	25.68	5.46	July	0.22	Mar.	55.4	127	74	132	159	s.
Academus	Windor	910	12	44.5	92	July 19*	-26	Jan. 30	12	43.56	10.55	July	T.	Mar.	59.2	111	111	131	123	
Academus	Orange	840	20	43.5	89	Sept. 15*	-28	Jan. 30	20	30.08	5.73	July	0.20	Mar.	53.0	129	129	75	161	
Academus	Addison	517	22	46.8	92	Sept. 15	-15	Jan. 30	29	23.96	3.96	July	0.17	Mar.	52.0	99	125	126	111	n.
Academus	Franklin	601	24	43.8	92	Sept. 15	-35	Jan. 30	24	32.82	5.21	July	0.63	Mar.	87.9	157	148	104	113	nw.
Academus	Lamoille	576	3	44.3	92	Sept. 15	-31	Jan. 30	3	33.02	7.36	July	0.53	Mar.	98.0	138	121	85	155	w.
Academus	Washington	876	29	42.4	89	Sept. 15	-28	Jan. 30	29	28.95	5.22	July	0.25	Mar.	57.9	142	76	110	179	s.
Academus	Windham	2,096	4	44.2	87	Sept. 15*	-16	Jan. 30	4	57.53	12.19	July	0.45	Mar.	107.0	153	101	153	103	nw.
Academus	Caledonia	711	22	45.2	94	Sept. 15	-30	Jan. 30	22	33.10	6.38	July	0.30	Mar.	50.1	141	147	102	116	n.
Academus	Windham	310	22	47.5	94	Sept. 15	-6	Dec. 31		39.69	7.40	Aug.	0.09	Mar.	47.3	98	114	132	119	nw.
Academus	Rutland	750	24	44.6	86	Sept. 15	-17	Jan. 30	24	37.70	6.69	July	0.37	Mar.	65.0	118	101	164	100	s.
Academus	Windor	700	23	45.8	95	Aug. 1	-21	Jan. 30	23	41.70	11.11	July	0.09	Mar.	40.5	100	118	111	136	
Massachusetts.																				
Academus	Hampshire	222	26	48.6	93	Sept. 9*	-4	Jan. 5	26	51.58	9.13	July	0.12	Mar.	39.3	120	127	110	128	nw.
Academus	Norfolk	640	31	48.0	88	Sept. 16	0	Jan. 30	31	44.03	9.52	July	0.06	Mar.	43.9	138	128	91	146	w.
Academus	Suffolk	124	45	51.2	94	Sept. 15*	3	Jan. 30	45	38.76	8.85	July	T.	Mar.	25.1	106	139	101	125	w.
Academus	do	124	35	50.2	94	Sept. 15	1	Jan. 30	43	44.94	6.89	Jan.	T.	Mar.	20.2	107	263	0	102	
Academus	Worcester	370	19	48.2	87	Sept. 16	0	Jan. 29	16	42.56	8.38	July	0.06	Mar.	25.8	115				
Academus	Middlesex	139	25	47.7	92	Sept. 14*	0	Dec. 31	25	43.83	11.64	July	T.	Mar.	34.6	116	122	123	120	nw.
Academus	Bristol	200	49	50.3	88	July 17	6	Jan. 30	49	42.70	10.00	Jan.	0.05	Mar.	38.0	122	124	189	52	w.
Academus	Worcester	550	32	48.6	93	Sept. 15*	0	Jan. 30	32	40.46	10.30	July	T.	Mar.	39.8	111	189	69	107	w.
Academus	Middlesex	160	35	49.1	92	Sept. 15	-1	Jan. 30	36	43.04	7.92	July	0.04	Mar.	25.7	111				
Academus	Barnstable	31	24																	
Academus	Essex	51	31	48.4	92	Sept. 15*	-3	Feb. 5	31	44.78	12.72	July	T.	Mar.	28.0	114	122	189	54	w.
Academus	Middlesex	100	30	49.8	90	Sept. 15*	-3	Jan. 30	61	46.20	11.69	July	0.01	Mar.		103				
Academus	Plymouth	53	29																	
Academus	Nantucket	47	29	50.0	83	July 30	16	Jan. 30	29	33.23	6.34	Jan.	0.25	Mar.	15.9	120	105	130	130	sw.
Academus	Bristol	88	103						101	41.47										
Academus	Norfolk	244	12						12											
Academus	Plymouth	50	30	47.4	89	Aug. 9	6	Jan. 30*	25	45.77	9.38	Jan.	0.08	Mar.	32.4	97	191	69	104	e.
Academus	Barnstable	40	28	49.5	90	Sept. 16	12	Jan. 30	29	36.43	7.19	Jan.	T.	Mar.	9.5	93	185	90	90	sw.
Academus	Essex	25	13						13											
Academus	Worcester	1,160	13						13											
Academus	Hampden	199	5	49.9	94	Sept.														



## Monthly and annual precipitation for the year 1915, with departures from the normal.

	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Annual.			
Stations.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.		
Maine.																												
Bar Harbor	3.07	-1.44	T.	-5.37	3.22	-0.32	1.08	-2.84	1.36	-2.31	10.42	-6.46	4.94	+0.73	1.64	-2.31	3.50	-0.40	3.81	-0.03	4.01	+0.89	43.73	-2.32	3.82	-0.04	34.59	-7.48
Cornish	4.00	+0.46	5.54	+1.81	0.21	-4.11	3.71	+0.56	3.14	-0.28	3.45	+0.32	7.75	+0.48	2.68	-0.44	1.21	-1.75	1.86	-0.02	2.16	-1.56	3.82	-0.04	34.59	-7.48		
Eastport	5.80	+1.96	2.57	-1.05	0.57	-3.71	3.58	+0.56	3.14	-0.28	3.45	+0.32	7.75	+0.48	2.68	-0.44	1.21	-1.75	1.86	-0.02	2.16	-1.56	3.82	-0.04	34.59	-7.48		
Fairfield	3.26	+0.25	3.46	+0.70	0.13	-3.06	2.41	+0.11	0.91	-1.97	0.85	-1.62	7.54	+0.42	3.89	+0.20	2.02	-1.54	2.32	-0.89	1.15	-2.23	4.08	+0.76	39.10	-2.35		
Farmington	3.51	-0.03	4.21	+0.82	0.13	-4.11	3.12	+0.53	2.66	-1.09	2.47	-0.95	9.17	+5.93	3.92	+0.50	1.21	-2.05	2.95	-1.02	3.08	-0.72	3.74	+0.07	38.35	-4.36		
Gardiner	3.43	+0.09	4.02	+0.56	0.12	-3.89	1.89	-1.50	2.41	-1.21	2.01	-1.69	8.98	+4.74	6.13	+2.33	3.74	-0.43	1.83	-1.53	2.56	-0.47	4.84	+2.05	44.16	+3.47		
Greenville	3.03	+0.37	4.36	+1.25	0.24	-2.80	3.49	+0.71	2.99	-0.48	2.00	-1.97	4.03	+0.57	4.25	+0.99	1.13	-2.34	1.52	-1.32	1.46	-0.72	3.85	+0.05	41.53	-2.83		
Houlton	2.31	-0.51	1.14	-1.37	0.35	-1.94	1.63	-0.37	4.19	+2.01	1.32	-1.97	4.03	+0.57	4.25	+0.99	1.13	-2.34	1.52	-1.32	1.46	-0.72	3.85	+0.05	41.53	-2.83		
Lewiston	4.29	+0.20	4.78	+0.29	0.17	-4.86	3.32	+0.05	1.81	-1.61	1.89	-1.53	9.52	+5.97	4.25	+0.99	1.13	-2.34	1.52	-1.32	1.46	-0.72	3.85	+0.05	41.53	-2.83		
Madison	4.21	+0.44	5.27	+2.10	0.31	-3.57	4.78	+0.85	2.50	-1.39	2.00	-1.88	9.98	+6.31	3.69	+0.80	2.20	-1.98	2.46	-1.77	2.94	-0.28	3.39	+0.20	41.73	-4.07		
Millinocket	3.76	-0.02	3.48	+0.41	0.11	-3.39	4.41	+1.11	3.50	+0.42	2.12	-1.09	5.48	+1.86	3.51	0.00	3.13	-0.86	2.08	-1.63	2.85	-0.63	4.40	+1.27	38.83	-2.29		
North Bridgton	3.41	-0.29	5.21	+1.49	0.07	-4.13	2.74	-0.62	1.62	-1.91	1.48	-1.95	11.03	+6.96	7.05	+3.79	1.64	-2.09	2.15	-1.12	2.87	-0.58	4.03	+0.68	43.30	+0.66		
Orono	2.49	+1.60	3.56	-0.16	0.34	-3.75	3.30	-0.39	4.97	+1.59	2.47	-0.87	6.67	+3.42	4.20	+0.51	2.80	-1.50	4.40	+0.09	2.30	-0.65	2.40	+0.12	37.70	-1.31		
Patten	2.50	-0.57	3.60	+1.00	0.30	-2.32	2.90	-0.21	3.90	+1.26	2.30	-1.39	10.84	+7.47	5.87	+2.43	0.62	-2.64	1.49	-1.05	2.77	-0.78	4.87	+1.12	43.44	+1.64		
Portland	6.00	-2.19	3.69	+0.04	0.09	-3.66	3.43	+0.20	2.05	-1.37	1.72	-1.39	10.84	+7.47	5.87	+2.43	0.62	-2.64	1.49	-1.05	2.77	-0.78	4.87	+1.12	43.44	+1.64		
Presque Isle	2.75	+0.33	4.10	-2.23	1.40	-0.83	3.13	+0.15	4.05	+0.61	1.95	-1.02	3.40	1.21	3.50	+1.42	3.25	+1.07	1.75	-1.47	2.19	-0.26	4.05	+1.70	35.52	-0.72		
Rumford	3.82	+0.64	4.65	+1.26	0.21	-3.29	3.48	+0.39	0.78	-2.73	2.46	-0.74	8.38	+4.57	5.84	+2.52	1.84	-1.47	1.75	-1.31	2.30	-0.96	3.47	+0.63	39.02	-2.35		
Schoodic	1.31	.....	4.22	.....	1.56	.....	1.99	+0.03	5.14	+2.00	1.08	-2.88	4.36	+0.81	2.99	-0.43	4.75	+1.55	2.44	-1.05	2.06	-0.27	3.79	+1.11	35.69	+1.18		
Van Buren	1.31	.....	4.22	.....	1.56	.....	1.99	+0.03	5.14	+2.00	1.08	-2.88	4.36	+0.81	2.99	-0.43	4.75	+1.55	2.44	-1.05	2.06	-0.27	3.79	+1.11	35.69	+1.18		
Winslow	2.98	-0.34	4.35	+1.74	0.18	-3.62	2.70	-0.06	2.95	-0.16	2.09	-0.83	9.16	+5.61	4.35	+1.14	1.48	-1.74	3.15	+0.01	1.94	+1.06	3.40	+0.55	38.73	+1.55		
New Hampshire.																												
Alstead Center	3.97	+1.17	3.93	+1.13	0.40	-3.39	2.94	-0.08	1.55	-1.73	1.67	-1.38	11.07	+6.79	8.14	+4.02	1.90	-1.69	2.85	-0.23	1.77	-1.28	4.68	+1.61	44.87	+5.24		
Bethlehem	1.87	-0.46	3.26	+0.90	0.47	-2.67	3.26	+0.88	1.82	-1.50	2.86	-0.23	7.16	+3.42	3.39	-0.49	2.36	-1.43	1.73	-1.27	1.66	-1.00	3.70	+1.37	33.48	-3.40		
Concord	3.47	+0.13	2.89	-0.39	T.	-3.40	2.62	-0.31	0.99	-2.16	1.37	-1.75	10.29	+6.63	6.26	+2.56	1.21	-2.22	3.02	-0.40	2.97	-0.33	3.42	+0.33	38.51	-0.39		
Durham	3.98	+0.10	2.84	-0.25	0.05	-4.31	1.75	-1.28	1.47	-1.41	2.08	-1.08	11.22	+8.20	.....	.....	0.85	-2.82	1.84	-1.36	3.97	+0.59	3.85	+0.35	.....	.....		
Franklin	4.47	+1.40	4.26	+1.45	0.06	-3.08	3.29	+0.09	0.83	-2.23	1.17	-1.32	11.70	+8.41	7.23	+3.39	1.67	-2.24	2.83	-0.24	3.09	+0.68	3.69	+0.21	44.29	+5.11		
Glencliff	.....	.....	3.89	+0.99	0.72	.....	1.89	.....	2.95	.....	.....	8.70	.....	4.62	5.23	.....	1.90	.....	2.30	.....	3.04	.....	4.66	.....	.....	.....		
Grafton	2.61	-0.45	3.60	+0.54	0.02	-2.98	2.42	-0.31	0.61	-2.93	2.66	-0.75	9.35	+5.41	3.69	+0.10	1.64	-1.94	1.90	-1.06	2.68	-0.24	2.73	-0.33	33.91	-5.25		
Hanover	3.32	+0.67	3.92	+1.53	0.03	-2.56	1.81	-0.54	0.98	-2.31	2.50	-0.90	9.69	+6.21	4.81	+1.25	1.59	-1.48	1.82	-1.32	1.93	-0.86	4.35	+1.71	36.75	+1.25		
Keene	4.44	+1.73	4.36	+1.67	0.04	-3.04	2.61	-0.04	1.11	-1.89	1.64	-1.12	11.09	+6.85	5.51	+1.58	2.42	-1.02	2.71	-0.19	2.25	-0.39	5.61	+2.61	43.79	+7.20		
Nashua	4.36	+0.31	1.95	-1.76	T.	-4.16	1.69	-1.44	2.06	-1.15	1.24	-0.46	8.89	+5.43	5.72	+1.90	9.99	-2.15	2.66	-0.62	2.63	-0.63	3.60	+0.03	40.81	-0.04		
Newton	4.23	+0.53	2.38	-0.82	0.16	-3.44	1.92	-1.50	1.42	-1.90	1.88	-1.12	11.47	+8.71	7.42	+4.32	0.20	-3.17	2.57	-1.03	2.32	-0.09	3.79	+0.53	40.66	+0.60		
Plymouth	3.94	+0.32	4.95	+2.04	0.16	-3.58	2.18	-0.67	1.36	-1.91	2.71	-0.51	8.71	+5.07	6.29	+2.37	2.09	-1.62	2.30	-0.93	3.23	-0.77	3.20	-0.05	40.22	+0.64		
Vermont.																												
Bloomfield	2.01	-0.29	3.73	+1.91	0.41	-2.31	1.99	-0.79	1.82	-1.37	3.11	-0.67	11.93	+7.61	5.94	+2.23	3.31	-0.44	2.29	-0.48	1.67	-0.19	2.73	+0.61	40.94	+5.92		
Burlington	1.16	-0.67	3.28	+1.91	0.22	-1.61	0.73	-1.29	1.73	-1.29	2.18	-1.10	5.46	+1.42	2.88	-0.64	0.97	+2.59	2.74	-0.57	1.72	-0.79	2.61	+0.72	25.65	-6.88		
Cavendish	4.89	+2.52	4.22	+2.02	T.	-2.75	2.18	+0.01	1.30	-1.83	2.85	-0.61	10.55	+6.91	5.94	+2.23	3.31	-0.44	2.29	-0.48	1.67	-0.19	2.73	+0.61	40.94	+5.92		
Chelsea	2.80	-0.91	3.38	+0.74	0.20	-3.55	1.63	-0.55	2.05	-1.10	2.23	-0.92	5.73	+2.35	4.19	+0.59	1.78	-1.56	1.52	-1.07	1.65	-1.14	2.92	+0.36	30.08	-5.07		
Cornwall	1.90	-0.78	2.40	+0.30	0.17	-2.13	0.63	-1.33	1.44	-1.60	1.70	-1.70	3.96	+0.27	3.43	-0.30	0.77	-2.24	2.71	-0.07	2.18	-0.22	2.87	+0.79	23.96	-8.07		
Enosburg Falls	1.71	-0.96	3.76	+1.04	0.63	-2.41	1.36	-1.15	2.89	-0.72	2.51	-1.63	5.21	+0.48	2.07	-1.77	2.65	-0.71	3.43	+0.33	2.77	-0.45	3.83	+0.93	32.82	-7.20		
Hyde Park	1.71	.....	3.43	.....	0.53	.....	1.83	.....	2.10	.....	.....	5.22	+1.67	4.55	+1.00	1.36	-1.56	1.72	-0.84	1.43	-1.18	2.76	+0.17	28.95	-4.63			
Northfield	2.56	+0.07	3.32	+1.06	0.25	-2.58	1.06	-1.22	1.56	-1.29	3.16	+0.14	5.22	+1.67	4.55	+1.00	1.36	-1.56	1.72	-0.84	1.43	-1.18	2.76	+0.17	28.95	-4.63		
Somerset	.....	.....	5.95	.....	0.45	.....	3.09	.....	1.89	.....	2.79	.....	12.19	.....	7.33	.....	3.49	.....	2.92	.....	2.32	.....	7.10	.....	57.53	.....		
St. Johnsbury	1.98	0.47	4.47	+1.37	0.30	-2.72	1.98	-0.27	2.01	-1.08	2.79	-0.59	6.38	+2.29	4.67	+1.19	3.22	-0.39	1.									



Monthly and annual mean temperatures for the Year 1915, with departures from the normal.

Stations.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Annual.	
	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.
<b>Maine.</b>																										
Bar Harbor	23.9	+3.9	28.2	+5.6	30.8	-0.4	48.3	+5.5	53.0	-0.6	62.6	-2.6	67.6	-1.4	65.8	-0.4	63.2	+4.4	51.1	+2.6	39.1	+0.2	28.5	+1.7	47.2	+2.7
Cornish	24.6	+5.5	27.6	+6.2	29.9	-1.0	39.6	+1.3	46.6	-0.3	53.2	-1.2	58.1	-1.7	58.2	-1.5	57.0	+1.8	48.6	+2.0	38.5	+1.7	29.6	+4.3	42.6	+1.4
Eastport	19.2	+3.4	24.6	+6.5	30.0	+2.2	45.8	+6.8	53.2	-0.9	60.4	-3.0	64.7	-3.2	64.3	-1.1	60.4	+2.7	52.2	+5.1	37.6	+2.2	24.8	+3.1	44.8	+2.0
Fairfield	18.2	+3.1	24.3	+6.8	29.8	-0.4	45.6	+3.2	53.0	-1.1	62.0	-0.5	66.6	-0.8	65.2	+0.5	61.0	+2.9	47.7	+0.1	35.1	+2.0	24.7	+7.2	44.4	+1.9
Farmington	21.0	+3.4	27.0	+7.1	30.5	+0.5	44.4	+0.8	52.3	-3.0	57.8	-7.4	63.2	-7.6	61.7	-6.7	58.0	-1.8	45.3	-3.9	38.4	+1.7	26.2	+2.5	43.8	-1.2
Gardiner	16.4	.....	20.4	.....	23.2	.....	40.8	.....	47.6	.....	58.8	.....	63.6	.....	61.4	.....	58.4	.....	46.7	.....	32.6	.....	22.0	.....	41.0	.....
Greenville	19.1	.....	21.6	.....	25.8	.....	41.4	.....	50.7	.....	60.6	.....	67.1	.....	65.4	.....	61.3	.....	50.8	.....	34.2	.....	24.1	.....	43.5	.....
Houlton	21.5	+3.3	26.4	+6.5	31.0	+2.2	45.6	+3.8	53.0	-1.6	61.8	-2.6	66.3	-3.2	64.8	-2.3	62.2	+3.0	50.0	+2.8	38.3	+2.6	26.9	+3.5	45.6	+1.5
Lewiston	15.2	.....	20.5	.....	27.4	.....	43.8	.....	50.5	.....	61.0	.....	66.6	.....	64.7	.....	59.5	.....	47.6	.....	36.2	.....	24.2	.....	43.1	.....
Madison	17.0	.....	23.2	.....	28.8	.....	42.6	.....	50.5	.....	61.8	.....	66.0	.....	64.2	.....	59.6	.....	47.3	.....	34.6	.....	24.2	.....	43.3	.....
Millinocket	22.8	+4.4	28.4	+9.0	30.6	+1.7	47.4	+4.5	52.8	-2.1	62.9	-1.7	67.8	-1.7	65.8	-1.4	63.2	+3.4	51.2	+2.1	38.5	+1.5	26.4	+2.7	46.5	+1.9
North Bridgton	23.9	+7.7	28.2	+9.0	31.5	+3.9	45.4	+4.9	53.0	+0.3	62.7	+0.4	67.4	+0.1	66.4	+0.9	62.4	+4.9	50.8	+4.6	38.2	+4.0	28.8	+7.5	46.5	+4.0
Orono	14.4	.....	18.8	.....	26.1	.....	42.0	.....	49.9	.....	60.0	.....	64.4	.....	61.6	.....	59.2	.....	47.1	.....	33.8	.....	21.7	.....	41.5	.....
Portland	26.4	+4.4	28.4	+4.6	32.2	+0.2	45.8	+2.8	52.3	-1.2	59.2	-3.4	64.7	-3.6	63.8	-2.4	61.4	+1.8	51.2	+2.1	40.8	+3.2	29.4	+2.3	46.3	-0.9
Presque Isle	12.9	.....	17.6	.....	23.7	.....	39.6	.....	51.2	.....	60.6	.....	64.1	.....	61.8	.....	56.4	.....	45.8	.....	31.4	.....	21.4	.....	40.6	.....
Rumford	19.4	+2.9	24.8	+6.6	29.3	+1.8	45.4	+4.0	51.8	-1.9	61.8	-1.8	66.4	-1.9	64.6	-1.1	61.4	+3.6	48.2	+2.5	36.9	+2.8	26.4	+4.9	44.7	+1.8
Schoodic	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Van Buren	12.7	.....	18.7	.....	23.8	.....	39.9	.....	47.2	.....	59.2	.....	64.7	.....	61.8	.....	54.8	.....	45.1	.....	32.6	.....	21.7	.....	40.3	.....
Winslow	21.2	+3.4	27.8	+9.1	31.5	+1.6	46.6	+5.4	52.4	-1.2	62.8	+0.1	67.9	-0.6	66.8	-1.1	63.2	+3.9	51.0	+3.3	38.6	+4.2	26.8	+5.8	46.4	+2.8
<b>New Hampshire.</b>																										
Astead Center	24.3	+5.3	26.3	+6.5	27.8	-1.5	48.9	+4.9	52.1	-5.8	63.1	-4.2	67.0	-4.7	64.2	-4.5	62.2	+2.4	49.0	+0.7	37.8	+2.8	24.6	+1.3	45.6	+0.3
Bethlehem	20.2	+4.8	23.4	+6.0	23.4	-3.1	45.6	+5.1	48.4	-5.4	59.7	-3.8	65.2	-1.9	63.0	-1.2	59.0	+2.5	47.0	+0.8	34.8	+2.2	22.0	+1.4	42.6	+0.6
Concord	25.1	+3.9	27.8	+4.2	31.7	-0.2	48.4	+4.6	52.6	-3.1	62.0	-2.4	68.2	-0.9	65.8	-0.8	63.4	+4.3	50.3	+1.6	40.0	+3.2	27.8	+1.4	46.9	+1.4
Durham	27.6	+4.9	28.5	+6.8	32.8	-0.7	47.4	+3.4	53.6	-1.2	60.6	-3.7	66.6	-3.4	63.3	-1.2	62.4	+1.9	50.3	+1.2	39.8	+0.8	28.2	-0.1	46.2	+1.0
Franklin	24.1	+3.5	24.2	+5.2	30.7	+0.4	49.6	+6.4	52.9	-3.4	64.0	+0.7	68.8	-1.5	65.6	-0.9	63.4	+3.5	50.6	+2.8	39.2	+3.4	26.8	+3.2	46.6	+2.0
Hendcliff	19.6	.....	22.8	.....	27.3	.....	47.4	.....	50.6	.....	60.3	.....	63.7	.....	62.3	.....	60.3	.....	45.9	.....	34.8	.....	21.1	.....	43.7	.....
Grafton	21.4	+4.6	23.9	+5.7	27.5	+0.2	46.6	+5.3	49.6	-3.7	59.6	-2.6	65.2	-2.6	63.0	-1.7	60.7	+3.8	47.8	+1.1	36.0	+1.8	23.8	+2.0	43.7	+1.2
Hanover	21.6	+4.7	25.4	+6.3	28.1	+0.7	48.4	+6.8	51.0	-4.4	62.8	-2.6	68.1	-1.1	65.8	-5.3	62.9	+5.1	50.0	+3.6	37.8	+4.2	24.7	+3.3	45.5	+1.8
Keene	24.5	+3.6	27.2	+4.6	29.6	-1.0	49.3	+5.2	51.8	-4.5	62.8	-2.1	68.0	-0.3	65.0	-1.2	62.6	+3.5	50.1	-2.5	38.2	+1.5	25.2	-0.4	46.2	+1.0
Nashua	28.3	+5.8	30.0	+6.0	33.8	-1.6	51.4	+5.9	55.4	-1.8	64.9	-1.4	69.8	-0.9	67.6	-1.0	66.1	+5.0	52.2	+3.3	41.6	+3.2	28.8	+1.1	49.1	+2.0
Newton	26.2	+3.2	27.6	+3.3	31.6	-0.2	46.7	+2.3	51.9	-3.3	59.2	-5.3	65.6	-3.6	64.6	-2.4	61.9	+1.8	50.1	+1.7	39.1	+1.8	27.6	+0.1	46.0	-0.1
Plymouth	21.6	+5.2	24.8	+6.9	27.8	+0.9	47.2	+6.0	51.8	-1.8	61.2	-3.0	67.6	0.0	64.8	-0.9	61.6	+4.2	47.8	+3.1	37.0	+4.3	25.4	+3.2	44.9	+2.3
<b>Vermont.</b>																										
Bloomfield	18.6	.....	22.3	.....	22.8	.....	44.2	.....	48.2	.....	59.6	.....	63.8	.....	63.4	.....	58.6	.....	47.2	.....	34.6	.....	23.0	.....	42.2	.....
Burlington	22.0	+5.7	23.6	+5.7	25.6	-1.7	48.3	+7.6	51.2	-2.7	62.6	-1.2	67.6	-0.6	65.2	-0.9	62.6	+3.7	50.3	+3.4	38.1	+4.4	25.2	+2.7	45.2	+2.2
Cavendish	21.0	.....	24.0	.....	27.1	.....	48.6	.....	52.0	.....	60.3	.....	65.0	.....	64.2	.....	60.8	.....	48.1	.....	35.4	.....	22.1	.....	44.5	.....
Chelsea	18.8	+3.8	23.8	+5.0	26.1	+1.1	46.2	+6.3	49.4	-3.2	60.3	-1.0	66.2	-1.0	64.3	-0.4	60.1	+3.9	47.8	+2.6	35.2	+2.0	22.6	+1.4	43.5	.....
Cornwall	23.6	+4.3	25.2	+6.0	27.2	-1.9	50.4	+5.1	52.6	-4.4	64.4	-2.7	69.2	-1.7	66.6	-1.3	66.1	+5.2	51.4	+1.7	38.8	+2.7	26.4	+1.0	46.8	+1.2
Enosburg Falls	20.5	+4.4	22.8	+5.8	22.8	-4.6	48.3	+5.6	50.0	-5.6	61.8	-3.4	67.4	-0.2	65.3	-0.7	60.8	+2.8	49.1	+1.8	34.6	+0.1	21.6	-0.7	43.8	-0.5
Field Park	20.6	.....	23.5	.....	25.2	.....	48.1	.....	50.4	.....	58.4	.....	67.0	.....	65.0	.....	60.6	.....	49.7	.....	36.6	.....	22.4	.....	44.3	.....
Northfield	18.4	+3.3	22.2	+5.0	24.9	-1.3	45.8	+5.6	47.6	-5.9	58.4	-4.3	64.6	-2.0	62.5	-0.4	59.4	+5.2	47.3	+3.7	35.4	+3.4	22.3	+1.8	42.4	+1.2
Rosmest	18.8	.....	24.0	.....	25.8	.....	47.8	.....	50.6	.....	62.8	.....	66.4	.....	66.5	.....	63.2	.....	47.4	.....	38.1	.....	21.8	.....	44.3	.....
St. Johnsbury	20.4	+5.5	24.6	+7.4	26.5	0.0	48.5	+6.7	51.9	-3.2	62.8	-1.2	68.4	+0.3	66.5	+2.1	62.4	+5.0	49.8	+3.4	36.7	+3.4	24.3	+3.6	45.2	+2.5
Wernon	25.6	+5.6	27.7	+5.5	30.7	+0.2	49.6	+4.0	55.8	-2.7	63.4	-3.4	69.2	-2.1	66.9	-1.9	65.4	+4.7	51.9	+2.7	38.8	+1.7	25.4	-0.3	47.5	.....
Wells	22.4	+4.2	24.8	+5.5	24.2	-3.3	48.0	+7.2	50.8	-4.6	63.1	-2.6	67.6	-1.4	64.4	-2.0	61.9	+3.1	48.4	+0.4	36.0	+1.1	23.4	-0.4	44.6	+0.6
Woodstock	23.8	+8.4	26.4	+9.0	28.4	+0.7	48.3	+7.5	51.6	-3.3	61.4	-3.6	66.8	-1.5	65.3	.....	62.8	+6.1	50.2	+4.4	38.4	+4.6	25.8	+4.3	45.8	+3.0
<b>Massachusetts.</b>																										
Amherst	27.4	+3.8	28.8	+3.9	33.0	-0.3	51.2	+5.8	54.0	-3.0	64.6	-1.6	70.2	-0.3	67.1	-1.1	66.2	+6.0	52.8	+3.8	41.0	+2.7	27.0	-0.3	48.6	+1.6
Blue Hill	29.0	.....	29.1	+3.5	30.8	-1.5	48.4	+5.9	54.5	-0.6	62.2	-1.7	68.3	-0.9	66.8	-0.6	64.6	+3.6	52.2	+2.7	41.0	+1.3	28.6	-1.2	48.0	+1.0
Boston	33.0	+6.0	33.2	+5.2	35.8	+0.8	50.8	+5.5	56.6	0.0	63.9	-1.9	70.1	-1.2	69.1	-1.0	66.4	+4.1	55.7	+3.4	45.4	+4.2	34.2	+2.6	51.2	+2.4
Buxton Hill	31.0	+4.6	32.3	+5.0	34.7	+0.4	50.3	+3.7	55.3	-2.1	64.3	-2.6	70.2	-1.4	68.6	-0.2	65.6	+2.7	55.4	+3.7	43.2	+1.9	31.5	+1.1	50.6	+1.4



## Monthly maximum temperatures for the year 1915, with dates.

Stations.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.
<i>Maine.</i>																								
Bar Harbor	62	7	48	24	57	25	83	27	82	12	90	14†	89	13	90	12	92	16	72	13	62	1†	50	26
Cornish	47	19	53	20	62	24	83	27	82	12	90	14†	89	13	90	12	92	16	72	13	64	1†	49	26
Eastport	50	7†	47	25	53	25	67	20	69	23	72	1	80	18	81	12	80	11	57	15	56	1	53	26
Fairfield	49	7	50	26	56	25	77	26	82	13	82	1†	82	11	82	12†	80	16	72	15	59	2	40	1
Farmington	49	7	44	20†	55	24	83	26	84	12	86	2†	87	13	89	12	89	16	75	14	58	1	43	26
Gardiner	51	7	48	25	56	24	71	26	82	12	85	1	77	27	83	14	88	16	75	14	59	12	53	26
Greenville	49	7	45	22	48	25	72	26	79	12	81	4†	82	25	83	12	87	16	75	13†	56	1†	44	26
Houlton	52	19	45	25	48	25	64	12	75	13	85	6†	88	22	85	12	83	10	70	22	62	2	38	1†
Lewiston	53	7	49	20	54	24	74	26	82	12	88	14	88	13	86	12	90	16	75	13	64	1	49	26
Madison	49	8	45	21†	53	26	79	29	82	13	86	2	88	14	86	13	87	16	75	15	57	3	45	27
Millinocket	48	7†	49	23	54	24†	70	19	80	12	85	29	85	11	86	11†	85	10	74	13	57	2	48	26
North Bridgton	54	7	52	20	57	25	85	26	81	12	89	14	89	13	88	14	90	15†	78	13	66	1	47	26†
Orono	52	7†	64	6	60	14	73	20	77	8†	87	29	89	19	89	12	89	17	76	13	62	2	54	26
Patten	50	19	53	23	53	25	70	10†	80	12	89	29	89	28	89	12	84	10	70	2	40	10	40	22
Portland	58	7	47	6	54	25	68	26	81	12	86	29	81	13	83	16	89	17	73	12	66	1	50	26
Presque Isle	48	7	44	26	45	24†	66	11	78	12	85	30	88	19	86	12	84	7	75	13	55	2	44	26
Rumford	48	7	48	20	50	24†	78	26	82	12	82	1†	85	13	84	12†	90	15	72	13†	56	1†	45	26
Schoodic					54	24†																		
Van Buren	47	19	43	23	45	24	65	11	73	7	94	26	89	25†	86	11†	83	7	74	13	66	1	44	5†
Winslow	53	21	51	9	55	24	77	26	81	12	86	16	89	25†	86	11†	90	16	76	13	63	1	52	26
<i>New Hampshire.</i>																								
Alstead Center	50	19	47	24†	53	25	82	27	75	31	83	18†	85	13†	84	1	86	15	69	21	65	1	50	26
Bethlehem	53	19	50	25	46	25	78	26	75	12	81	7	85	31	84	1	87	15	72	14	63	1	50	26
Concord	57	7	50	23	55	25	85	26	79	31	87	14	89	13	86	14	92	15	76	21	67	1	55	26
Durham	61	7	54	12	58	25	84	26	86	22†	89	29	90	13	88	1	93	15	74	21	67	1	50	26
Franklin	55	7	52	6	56	25	86	26	83	31	91	14	89	13	88	1	91	15	78	13	68	1	51	26
Glencoff	48	18	48	6	47	26	75	13	80	8	83	31	83	31	84	2	87	16	66	14†	60	2	48	26
Grafton	54	7	48	23	54	25	83	26	79	12	87	14	88	31	86	1	91	15	75	13	65	1	50	26
Hanover	53	7	51	23	52	24†	86	26	79	12	85	14†	90	31	88	1	91	15	74	12†	66	1	45	26
Keene	55	7	50	25	56	25	87	27	79	31	89	14	88	31	86	1	90	15	75	21	67	1	53	20
Nashua	59	7	54	6	60	25	89	26	79	22	94	14	91	13†	89	14†	96	15†	77	13†	70	1	54	26
Newton	58	19	54	24	58	24†	86	26	79	22	88	14	88	13†	86	14	91	15†	74	13†	69	1	56	26
Plymouth	49	7	44	23†	50	25	83	26	80	31	87	14	87	4†	84	1	88	15	73	13	64	1	47	26
<i>Vermont.</i>																								
Bloomfield	51	7	45	22†	48	25	78	26	78	12	86	5	87	31	85	1	92	15	73	13	64	1	49	25
Burlington	51	7	48	23	48	25	82	26	78	12	84	5	87	31	83	12†	98	15	71	13	64	1	44	25
Cavendish	51	7	47	24	52	25	89	27	78	12	87	14†	92	19	92	8	90	15	74	21	67	1	49	25
Chelsea	50	7	47	6†	50	25	83	26	76	12†	84	14†	89	31	88	1	89	16	72	13	65	1	49	26
Cornwall	50	7	51	8	52	24	85	26	77	12	88	29	90	81	85	1†	92	15	72	13	61	2	42	25
Enosburg Falls	53	7	50	25	49	25	82	26	79	12	86	3	87	11†	86	12	92	15	75	13	62	1	44	26
Hyde Park	57	7	54	23	50	25	84	26	79	12	88	28	88	31	85	11†	92	15	77	13	68	1	42	26
Northfield	50	7	48	23	49	25	82	26	76	12	81	5	86	31	85	1	89	15	74	13	66	1	48	26
Somerset	44	19	50	23	45	24	82	27	71	25	81	18	86	31	82	1†	87	15†	77	10	59	8	45	25
St. Johnsbury	53	7	47	6	51	25	82	27	81	12	86	5†	91	31	87	1	94	15	75	13	68	1	43	26
Vernon	56	19	48	21	55	25	86	25	79	22	90	14	90	31	88	13	94	15	74	13	68	1	47	26
Wells	52	19	48	24†	46	25	80	26†	75	31	82	1	85	16†	85	1	86	15	68	14	60	1	50	26
Woodstock	50	7†	48	23	47	24	84	26	80	25	85	14†	89	16†	95	1	88	4†	81	14	65	1	58	26
<i>Massachusetts.</i>																								
Amherst	54	7†	51	24	57	25	88	25†	80	31	89	14	91	31	88	1†	93	9†	76	13†	69	1	53	26
Blue Hill	56	7	55	24	54	25	81	26†	75	31	86	14	86	13†	84	13†	88	16	72	13	67	1	56	26
Boston	61	19	61	24	60	25	84	26	80	22	87	29	90	12	89	16	94	15†	78	13	72	1	61	18
Chestnut Hill	59	7†	59	24	58	25	84	27	79	22	89	14	89	31	88	15	94	15	76	13	70	1	62	26
Clinton	57	19	57	24	59	25	85	27	75	22	81	29	83	13†	83	16	92	16	71	13†	61	1	59	25
Concord	59	7†	57	24	57	25	86	26	79	22	88	14	86	13	85	16	92	14†	75	13	70	1	57	26
Fall River	57	18	54	15†	57	27	85	27	74	9	84	18	88	17	85	13	87	16	74	14	67	2	58	18
Fitchburg	57	7	53	6	57	24	88	27	80	22	90	14	89	15	85	13†	93	15†	75	13†	68	1	55	26
Framingham	59	19	55	24	58	25	85	27	77	8†	89	14	88	15†	86	13†	92	15	75	13†	69	1	58	18
Hyannis	53	19	49	24																				
Lawrence	57	7†	56	24	57	24†	85	26	81	22	90	14	88	13†	86	24	92	15†	74	21	68	1	57	26
Lowell	59	19	55	25	57	25	82	26	78	22	89	15	85	15†	85	13†	90	15†	72	17†	66	1†	53	26
Middleboro	58	7†	55	24	57	19†	86	27	77	9	89	14	88	17	85	13†	91	14	72	14	64	2	55	18
Nantucket	54	19	49	15	52	25	74	20	70	7	77	29	83	30	82	16	81	14	72	14	64	2	55	18
New Bedford	55	19	53	13	54	25	84	27	73	9	81	14	86	17	83	14†	86	16	77	17†	70	1	54	18
Norfolk	59	7	59	24	60	24	84	27	77	9	93	14	91	12	91	14	95	16	77	17†	70	1	54	1

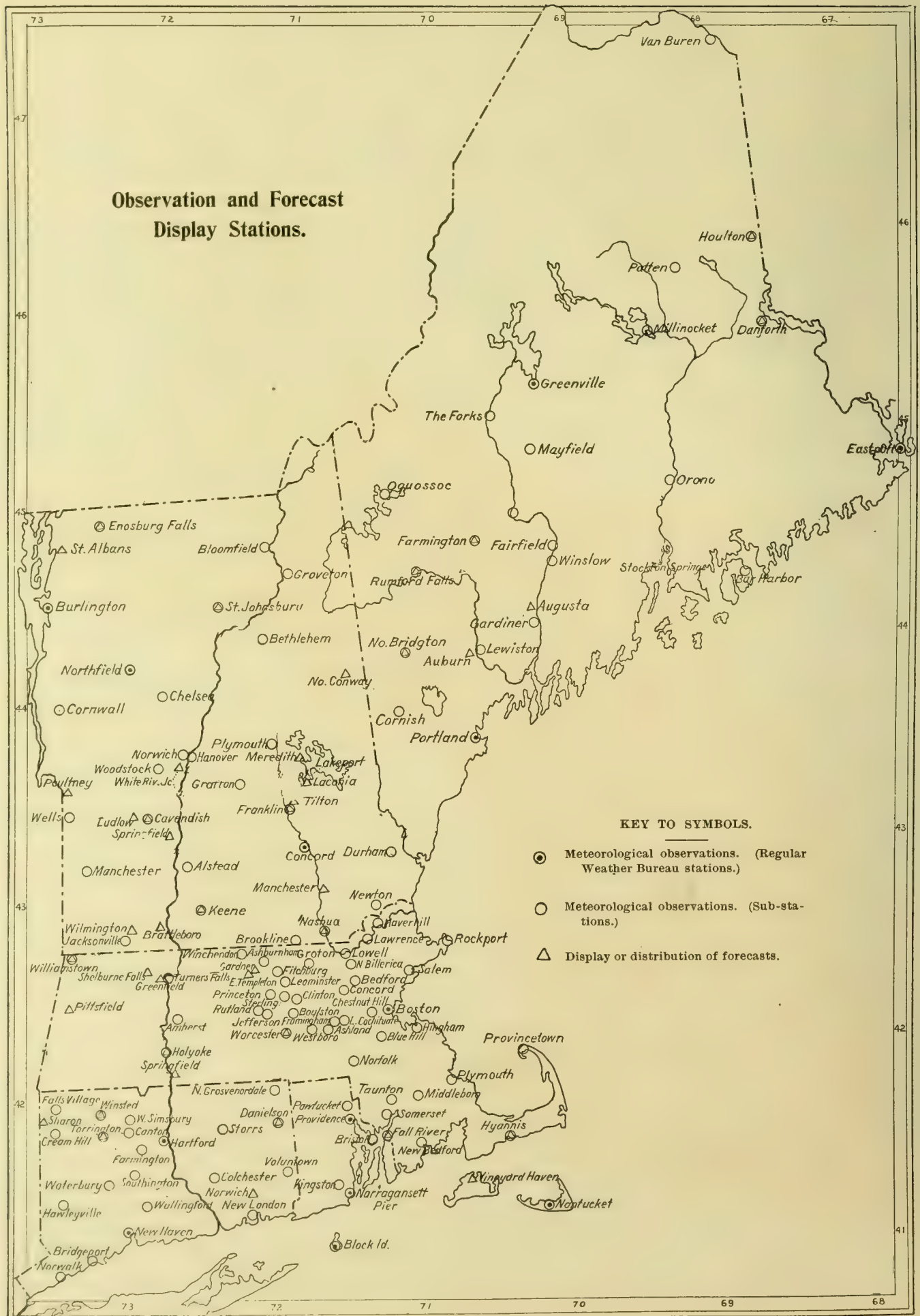


## Monthly minimum temperatures for the Year 1915, with dates.

Stations.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		
	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	
Maine.																									
Bar Harbor			- 6	2†	12	27													28	11	22	19†	5	13†	
Cornish	-23	30	- 6	5	11	30	21	5	31	15†	29	3	50	6†	37	28	33	23	25	11†	17	18	7	31	
Eastport	- 9	30	- 7	2	10	27	27	4	33	27	37	3	46	6	46	27	38	27	32	23	25	25	7	31	
Fairfield	-23	31	-14	5	7	30	20	3†	32	27	31	3	45	8	40	28	33	23	30	25	20	18	3	31	
Farmington	-16	31	- 9	5	10	4†	20	3†	32	15†	29	3	44	7†	37	28	33	22†	21	25	15	26	- 6	31	
Gardiner	-16	31	-11	5	11	30	17	5	33	27	31	3	48	11	41	27	35	23	26	25	20	23	- 7	31	
Greenville	-18	30†	-15	4	-10	27	15	3	22	27	33	3	45	6	32	28	31	22	25	23	11	17	- 1	31	
Houlton	-26	31	-19	4	5	3	20	4	30	21	35	13	44	3	40	27	32	26	26	25	16	26	6	30	
Lewiston	-14	31	- 7	5	11	3	24	5	37	15†	34	3	52	7†	44	28	40	23	28	25	23	26	4	31	
Madison	-29	31	-27	1	9	13†	20	3	31	28	31	3	46	7†	38	28	25	27	23	25	18	27	3	31	
Millinocket	-17	1†	-14	11	6	13	20	3†	25	27	38	1†	42	7†	32	28	33	23†	28	7†	16	26	0	13	
North Bridgton	-17	31	- 4	5	9	4	23	3†	33	14	30	3	49	7	42	27	34	27	27	25	20	17†	5	22	
Orono	-21	31	- 8	2	6	27	20	3	25	27	31	3	39	7†	36	28	30	26	27	25	*19	19	- 4	31	
Patten	-21	31	-32	1	4	27	17	3	*25	21	d28	3	d38	7	30	28	*28	25†	*22	23	d12	25†	d	0	31
Portland	- 5	30	- 1	2	12	3	29	4	35	27	38	3	53	9	46	28	40	28	33	11	25	18	12	31	
Presque Isle	-35	31	-27	4	- 1	7	15	5	28	18	30	2	37	10	32	28	28	23†	22	25	5	24	-15	31	
Rumford	-12	31	- 6	5	10	3†	23	3	32	30	33	3	48	7	39	28	39	25	31	25	20	25†	9	31	
Schoodic					7	13†																			
Van Buren	-36	31	-25	4	1	6†	17	5†	26	21	32	2					28	25	23	11†	1	25	- 9	31	
Winslow	-19	31	-11	5	10	30	20	3	33	21†	31	3	48	11	38	28	34	23	24	25	22	19†	- 4	31	
New Hampshire.																									
Alstead Center	-11	30	- 1	2	5	3†	25	5	32	27	34	3	48	7	40	28	35	28	28	25	18	18	6	31	
Bethlehem	-25	30	- 4	10	1	4	20	3†	27	27	30	3	47	7	35	27†	32	30	23	25	16	17	- 5	31	
Concord	-13	31	- 2	5	10	3	24	5	32	15	32	3	49	7	40	28	39	23	24	25	22	17	11	31	
Durham	- 7	30	- 2	11	9	4	24	5	30	30	32	4	47	25	40	28	37	23	25	25	22	17	3	31	
Franklin	-16	31	- 4	5	8	3†	21	5	29	15	30	3	48	7	40	28	36	23	23	25	20	17	8	31	
Glencoliff	-19	29†	- 2	2†	0	4			28	14†	34	3	43	7	36	28	30	29	22	11†	12	17	- 2	31	
Grafton	-23	30	-10	5	5	4	16	5	25	15†	28	3	42	10	33	28	29	23	20	25	14	19	0	31	
Hanover	-21	30	- 4	5	6	4	20	5	28	15	31	3	46	7	38	27†	31	30	22	25	16	18	-14	31	
Keene	-15	30	- 3	11	9	4	17	5	29	15†	31	3†	43	7†	37	27	30	23†	21	25	17	18	- 7	31	
Nashua	- 4	30	- 4	4	11	4	20	5	34	15†	35	3	47	7	43	27	34	23	25	25	24	26	8	31	
Newton	- 5	30	- 4	5	9	3†	19	5	28	15†	29	3	43	7	38	27	34	26	23	25	19	26	2	31	
Plymouth	-14	31	- 9	5	4	27	20	5	28	30	29	3	44	7	38	28	36	23	22	25	19	19†	4	31	
Vermont.																									
Bloomfield	-38	30	-14	11	- 1	30	15	6	24	15	29	5	40	8	34	27†	29	23†	22	25	14	19	-17	31	
Burlington	-18	30	- 6	2†	5	3	24	3	33	30	42	3	50	21	41	27	34	30	27	25	19	18	- 5	31	
Cavendish	-26	30	-17	11	5	4	17	5	28	16†	28	3	41	7	36	26	30	29†	20	24	14	17	-14	30	
Chelsea	-28	30	- 9	10	4	3	16	14	26	15	28	3	41	10	33	28	28	30	18	25	13	18	-17	31	
Cornwall	-15	30	- 8	2	7	3†	24	5	33	15†	42	2	49	7	40	27	36	28	25	25	16	18	7	30	
Enosburg Falls	-35	30	-14	4	0	15	19	5	27	15	37	3	41	10	32	27†	26	30	20	25	9	18	-23	31	
Hyde Park	-31	30	- 8	4	3	19	17	5	27	14†	37	1	41	10	33	27	28	31	20	25	15	7	-16	31	
Northfield	-28	30	- 7	10	5	3	19	5	27	30	31	3	45	7	33	28	30	30	20	25	14	18	-15	31	
Somerset	-16	30	- 5	10	3	3	22	3	34	1	44	3	51	2	45	27	35	28	26	23	18	18	- 6	31	
St. Johnsbury	-30	30	- 6	5	5	30	18	5	29	15†	33	3	45	10	36	28	31	23	23	25	17	19	-15	31	
Vernon	- 4	5	- 2	5	14	1	26	4	39	16	45	6	46	7	40	28	34	30	26	25	20	26	- 6	31	
Wells	-17	30	- 7	10	0	4	25	14	26	27	37	3	a48	3	38	27	31	28	24	25	15	18	- 1	31	
Woodstock	-21	30	- 7	10	7	3	22	5†	28	30	29	3	44	7	30	28	30	23	20	25	15	18	- 9	31	
Massachusetts.																									
Amherst	- 4	5	2	5	13	3	22	5	34	16	37	4	48	7	42	27	35	23†	26	25	20	18	2	31	
Blue Hill	0	30		3	9	4	28	4	36	27	41	4	54	7†	48	27	40	28	32	25	24	18	11	31	
Boston	3	30	10	2	13	3	30	3	39	27	44	3	58	2†	51	27	44	28	37	25	29	18	16	31	
Chestnut Hill	1	30	5	5	12	4	23	5	34	30	40	3	50	7	48	28	38	1	31	11†	25	27	10	12†	
Clinton	0	29	3	2	11	3	24	3	30	26	b38	2	52	6	46	26†	38	30	30	24	24	25	11	30	
Concord	1	30	1	5	11	3	18	5	32	30	35	3	47	7	43	27	34	23	24	25	21	26	0	31	
Fall River	6	30	11	3†	13	3†	30	4†	38	27	43	3	55	23†	51	27	40	28	34	25	27	18	10	31	
Fitchburg	0	30	2	2	10	4	23	5	35	27	36	14	50	7	43	27	37	30	28	25	24	26	10	31	
Framingham	- 1	30	1	5	10	4	20	5	34	30	36	3	48	7	45	28	37	28	27	25	23	26†	2	31	
Hyannis*	13	30	18	27†																					
Lawrence	- 2	30	- 3	5	10	3	23	5	37	15†	36	3	50	7	46	27	40	23†	30	25	25	26†	11	12†	
Lowell	- 3	30	0	5	11	4	24	5	37	27	38	3	51	7	46	27	40	23	30	25	24	26†	8	31	
Middleboro	4	5	5	5	10	4	16	5	29	30	39	1	43	7	43	27									
Nantucket	16	30	20	27	17	3	34	4	41	30	45	2	55	26	53	28	46	28	40	24	33	18	21	11	
New Bedford	9	30	13	10	14	3	32	3†	39	27	44	2	57	22†	51	7	42	28							
Norfolk	0	31	- 2	5	15	4	28	2	27	30	34	4	46	24	37	27	29	23†	19	25	*16	25	25		

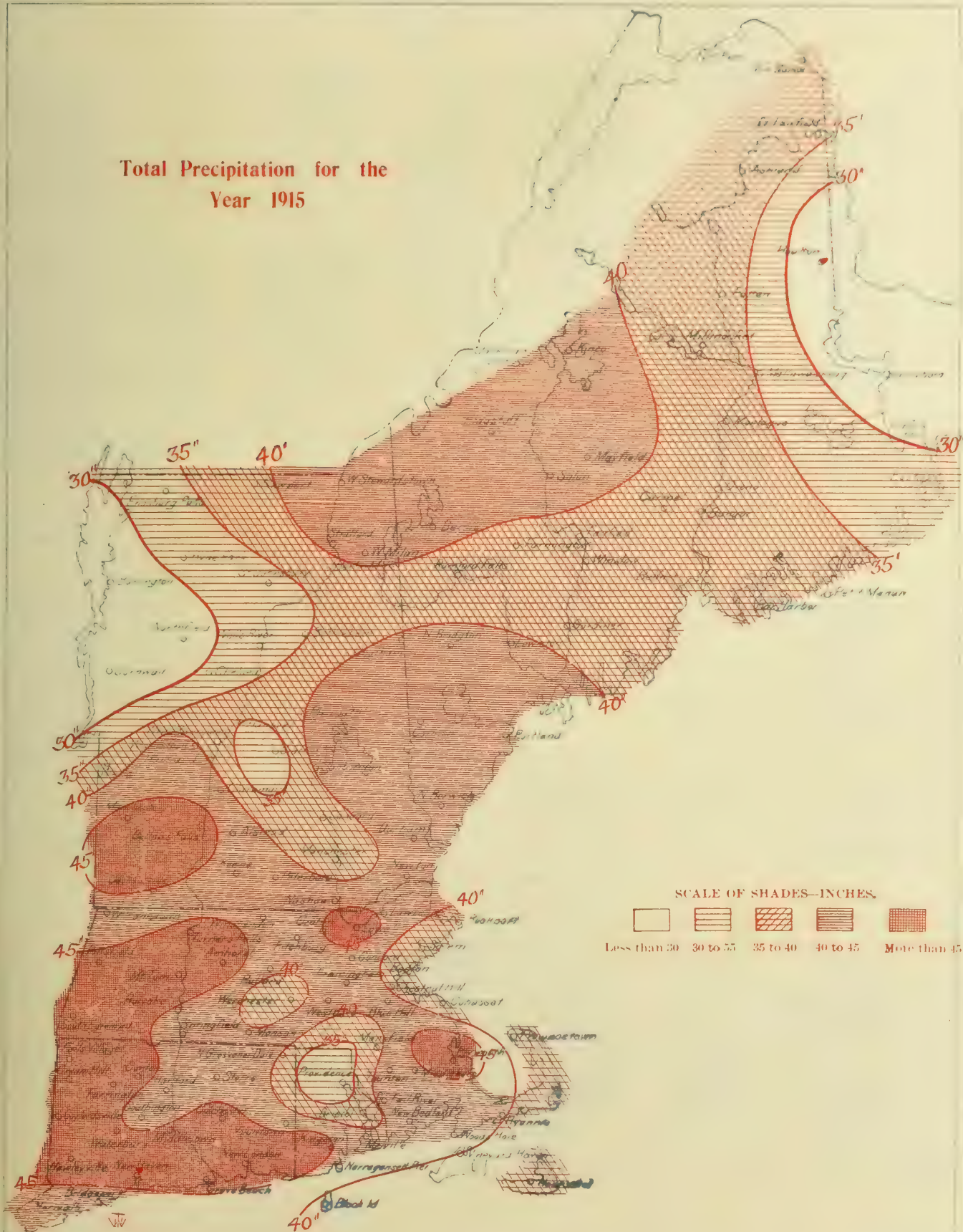


# Observation and Forecast Display Stations.





## Total Precipitation for the Year 1915





## COOPERATIVE OBSERVERS.

Station.	Observer.	Station.	Observer.	Station.	Observer.	Station.	Observer.
<b>MAINE.</b>		Concord .....	U. S. Weather Bureau	Boylston .....	Met. Water Board.	<b>RHODE ISLAND.</b>	
Ashland .....	F. R. Coburn.	Durham .....	N. H. Agr. College.	Brockton .....	City Engineer.	Block Island .....	U. S. Weather Bureau
Bar Harbor .....	Wm. Miller.	Franklin .....	Dr. C. F. Webster.	Chestnut Hill .....	Met. Water Board.	Bristol .....	N. G. Herreshoff.
Cambridge .....	J. D. Ring.	Glenciff .....	State Sanatorium.	Clinton .....	Met. Water Board.	Greene .....	A. K. Greene.
Cornish .....	T. H. West.	Grafton .....	P. R. Kimball.	Concord .....	F. A. Tower.	Hope Valley .....	H. A. Spencer.
Danforth .....	Ed. Huff.	Hanover .....	Dartmouth College.	Fall River .....	C. V. S. Remington.	Kingston .....	Nathaniel Helme.
Eastport .....	U. S. Weather Bureau	Keene .....	Samuel Wadsworth.	Fitchburg .....	Dr. A. P. Mason.	Narragansett Pier.	U. S. Weather Bureau
Eustis .....	F. L. Porter.	Nashua .....	Jackson Co.	Frammingham .....	Met. Water Board.	Pawtucket .....	A. H. Keene.
Fairfield .....	E. F. Parker.	Newton .....	W. C. Gale.	Haverhill .....	City Engineer.	Providence (a) .....	City Engineer.
Farmington .....	W. G. Mallett.	Plymouth .....	Mrs. Hattie G. Trow.	Hobbs Brook .....	Cambridge W. Works.	Providence (b) .....	U. S. Weather Bureau
Gardiner .....	Samuel D. Soule.	<b>VERMONT.</b>		Jefferson .....	Met. Water Board.	Wallum Lake .....	State Sanatorium.
Greenville .....	U. S. Weather Bureau	Bloomfield .....	L. F. Power Co.	Lake Cochituate .....	Essex Co.	<b>CONNECTICUT.</b>	
Houlton .....	B. & A. RR.	Burlington .....	U. S. Weather Bureau	Lawrence .....	W. H. Hosmer.	Bridgeport .....	Wm. Jennings.
Howe Brook .....	B. & A. RR.	Cavendish .....	Colonial Power Co.	Leominster .....	Prop. Locks & Canals.	Canton .....	G. J. Case.
Lewiston .....	Union Water Po'r Co.	Chelsea .....	W. F. Dewey.	Lowell (a, b) .....	U. S. Weather Bureau	Cholchester .....	S. P. Willard.
Madison .....	Wm. Jardine.	Cornwall .....	C. H. Lane.	Nantucket .....	City Engineer.	Cream Hill .....	C. L. Gold.
Millinocket .....	Great N'ern Paper Co.	Enosburg Falls .....	J. W. Pomeroy.	New Bedford .....	Miss L. B. Knapp.	Danielson .....	F. E. Bitgood.
North Bridgton .....	C. L. Chadbourne.	Hyde Park .....	A. V. Wiswell.	Plymouth .....	Met. Water Board.	Falls Village .....	M. H. Dean.
Oquossoc .....	Me. State Fish Hat'y.	Northfield .....	U. S. Weather Bureau	Princeton .....	Gideon Bowley.	Hartford .....	U. S. Weather Bureau
Orono .....	Maine State College.	Norwich .....	C. W. Brown.	Rockport .....	U. S. C. G. Station.	Hawleyville .....	C. B. Hawley.
Patten .....	B. & A. RR.	Somerset .....	Power Construc'n Co.	Roberts Dam .....	Cambridge W. Works.	N. London W. Works.	U. S. Weather Bureau
Portland .....	U. S. Weather Bureau	St. Johnsbury .....	Fairbanks Museum.	Rutland .....	State Sanatorium.	New Haven .....	T. C. Dillon.
Presque Isle .....	E. M. Libby.	Vernon .....	Conn. River Power Co.	Spot Pond .....	Water Works.	N. Grosvenor Dale .....	Grosvenor-Dale Co.
Rumford Falls .....	C. A. Mixer.	Wells .....	E. R. Pember.	Sterling .....	Met. Water Board.	Norwalk .....	G. C. Comstock.
The Forks .....	W. W. Young.	Woodstock .....	John S. Eaton.	Somerset .....	Elisha Slade.	Southington .....	L. Andrews.
Van Buren .....	Rev. J. M. Thomas.	<b>MASSACHUSETTS.</b>		Springfield .....	U. S. Army.	Storrs .....	Agr. Exper. Station.
Winslow .....	H. & W. Co.	Amherst .....	Mass. Exp. Station.	Taunton .....	Taunton War Works	Torrington .....	Supt. of Schools.
<b>NEW HAMPSHIRE.</b>		Ashland .....	Met. Water Board.	Turners Falls .....	Turners Falls Co.	Voluntown .....	J. L. Herbert.
Alstead Center .....	Frank Dewing.	Baker's Bridge .....	J. E. Baker.	Westboro .....	Miss E. W. Newcomb.	Wallingford .....	W. R. Gilbert.
Bethlehem .....	Benjamin Tucker.	Bedford .....	C. W. Jenks.	Williamstown .....	Williams College.	Waterbury .....	N. J. Welton.
Brookline .....	G. W. Bridges.	Blue Hill .....	Blue Hill Observatory	Winchendon .....	John Gregory.		
				Worcester .....	G. W. Swan.		

## DISPLAYMEN.

Station.	Displayman.	Station.	Displayman.	Station.	Displayman.	Station.	Displayman.
<b>MAINE.</b>		*Portsmouth .....	E. M. Fisher.	*Fall River .....	Wm. Durfee.	<b>RHODE ISLAND.</b>	
Augusta .....	Custodian U. S. P. O.	*Rye Beach .....	U. S. C. G. S.	*Gloucester .....	R. E. Geary.	*Block Island .....	U. S. Weather Bureau
*Booth Bay Harbor .....	C. H. McCobb.	Sunapee .....	Emerson Paper Co.	*Highland Light .....	I. M. Small.	*Narragansett Pier .....	U. S. Weather Bureau
*Eastport .....	U. S. Weather Bureau	*†Seaveys Island .....	U. S. N., Portsmouth.	Holyoke .....	O. C. Ferry.	*Newport .....	Naval Torpedo Sta.
Farmington .....	W. G. Mallett.	*Wallis Sands .....	U. S. C. G. S.	*Hull .....	W. S. Richardson.	*Newport .....	G. L. Ferrin.
*Isle of Shoals .....	U. S. C. G. S.	<b>VERMONT.</b>		*Hyannis .....	S. C. Fuller.	*Point Judith .....	U. S. L. S. S.
Lewiston .....	D. F. Thompson.	Burlington .....	U. S. Weather Bureau	*Marblehead .....	Girdler Stacey.	*Providence .....	U. S. Weather Bureau
*Machiasport .....	W. C. Hanson.	Northfield .....	U. S. Weather Bureau	*Monomoy .....	U. S. C. G. S.	*Providence .....	R. I. Yacht Club.
*Marshall Point L't .....	A. P. Skinner.	<b>MASSACHUSETTS.</b>		*Nantucket .....	U. S. C. G. S.	*Saunderstown .....	Hose Co. 20.
*Portland .....	U. S. Weather Bureau	Amherst .....	Mass. Exp. Station.	*†Nantucket S. S.	U. S. N., Nantucket.	*Southeast Light .....	J. L. Eaton.
*Vinalhaven .....	T. E. Libby.	*Boston .....	U. S. Weather Bureau	Light-ship .....	Wm. A. Coe.	CONNECTICUT.	
*West Quoddy L't .....	C. M. Guptill.	*Chatham .....	W. L. Nickerson.	*New Bedford .....	L. B. Besse.	*Bridgeport .....	T. J. Keegan.
*White Head Isl'd .....	Ida E. Shea.	*Cuttyhunk .....	U. S. C. G. S.	*Newburyport .....	Alfred Nickerson.	*Greenwich .....	Yacht Club.
<b>NEW HAMPSHIRE.</b>		*East Chop .....	East Chop Light Sta.	*North Plymouth .....	Plymouth Cordage Co	*New Haven .....	U. S. Weather Bureau
Claremont .....	C. H. Weed & Co.			*Pocasset .....	Wings Neck Light Sta	*New Haven Light .....	Albert Widman.
Durham .....	N. H. State College.			*Provincetown .....	M. A. Bowley.	*New London .....	T. C. Dillon.
*Portsmouth Har'r .....	U. S. C. G. S.			*Race Point .....	U. S. C. G. S.	Torrington .....	Supt. of Schools.
				*Rockport .....	U. S. C. G. S.	*Stonington .....	J. N. Fuller.
				*Tarpaulin Cove .....	Jesse Donald.		
				*Wellfleet .....	F. A. Snow.	*Fisher's Is'd, N.Y.	Fort H. G. Wright.

NOTE.—Wireless stations at Boston Navy-yard, Highland Light, Newport Torpedo Station, also repeat to vessels in addition to the wireless stations displaying warnings.  
 \*Stations displaying storm warnings. †Government wireless stations.

## FORECAST DISTRIBUTING CENTERS.

Station.	Distributor.	Station.	Distributor.	Station.	Distributor.	Station.	Distributor.
<b>MAINE.</b>		North Conway-50.	Postmaster.	White River J'ct-96	Postmaster.	<b>RHODE ISLAND.</b>	
Auburn-18 .....	Postmaster.	Peterboro .....	Do.	Wilmington-92 .....	Do.	Block Island-45 .....	U. S. Weather Bureau
Augusta-111 .....	Do.	Tilton-5 .....	Do.	<b>MASSACHUSETTS.</b>		Narragansett Pier .....	Do.
Eastport-202 .....	U. S. Weather Bureau	Tilton-200 .....	Citizens Tele. Co.	Boston-2931-# 2200	U. S. Weather Bureau	Providence-763 .....	Do.
Farmington-800 .....	Maine Tel. & Tel. Co.	<b>VERMONT.</b>		Fall River-182 .....	Postmaster.	<b>CONNECTICUT.</b>	
Houlton-27 .....	Postmaster.	Brattleboro-331 .....	Postmaster.	Gardner-61 .....	Do.	Hartford-1183-#145	U. S. Weather Bureau
Houlton-2800 .....	Aroostook Co. Tele. Co.	Enosburg Falls-1200	U. S. Weather Bureau	Greenfield-54 .....	Do.	New Haven-1075	U. S. Weather Bureau
Portland-769 .....	U. S. Weather Bureau	Ludlow-130 .....	Ludlow Tele. Co.	Holyoke-67 .....	O. C. Ferry.	*505	
<b>NEW HAMPSHIRE.</b>		Northfield-78 *320.	U. S. Weather Bureau	Nantucket-25 .....	U. S. Weather Bureau	Norwich-96 .....	Postmaster.
Concord-341 .....	Henniker Tele. Co.	Readsboro-100 .....	Postmaster.	Pittsfield-223 .....	Postmaster.	Sharon-100 .....	Sharon Tele. Co.
Henniker-177 .....	Postmaster.	Springfield-175 .....	Springfield Local	Shelb'ne Falls-1659	Heath Tele. Co.	Torrington-8 .....	Postmaster.
Laconia-19 .....	Do.		Tele. Co.	Vineyard Haven-6	Martha's Vineyard	Wash'n Depot-50.	Do.
Manchester-212 .....	Do.	St. Albans-50 .....	Postmaster.	Worcester-188 .....	Tele. Co.	Winsted-21 .....	Do.
Meredith-375 .....	Winnepesaukee Tele- phone Co.	St. Johnsbury-119.	Do.		Postmaster.		

Figures indicate number of forecast cards mailed daily from distributing center.

\*Number of Weather Maps mailed daily.



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NG  
Stack

U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

JANUARY, 1916

---

BY  
JOHN W. SMITH  
DISTRICT FORECASTER AND SECTION DIRECTOR

---



BOSTON, MASS.  
WEATHER BUREAU OFFICE  
FEBRUARY 23, 1916



Departure of the Mean Temperature from the Normal, January, 1916.



Shaded portions show excess (+).  
Unshaded portions show deficiency (-).  
Lines show amount of excess or deficiency.



## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, District Forecaster and Section Director.

VOL. XXVIII. BOSTON, MASS., JANUARY, 1916.

No. 1.

## GENERAL SUMMARY.

The month was warmer than usual. The precipitation was much below the normal, the average for the section being the smallest for this month during the past 29 years. The temperature was generally normal for the season during the first and second decades, with brief warm and cold periods; during the third decade it was much above the normal, with day temperatures above 40° nearly every day, except in the extreme northern portion of the section. The maximum temperature for the section, 70°, was the highest of record for January since 1888. Temperatures of zero or below, except at a few scattered stations, were confined to the northern states. The precipitation occurred in small amounts, and was well distributed through the month and over the section. The snowfall was less than usual and occurred in small amounts. The amount on the ground gradually diminished from the beginning of the month, little or none remaining by the 15th in the southern portion of the section; in the northern portion the amount on the ground at the end of the month ranged from patches in open places to between 6 and 9 inches in the woods.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 14 stations reporting, was 30.17 inches, which was .12 inch above the normal for the month. The highest monthly mean was 30.21 inches, at Hartford and New Haven, Conn.; the lowest, 30.09 inches, at Eastport, Me. The highest recorded was 30.78 inches, at Burlington, Vt., on the 29th; the lowest, 29.31 inches, at Eastport, Me., on the 6th. The monthly range for the section was 1.47 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 14 stations, was 25.8°, which was the same as the mean for January, 1915. During the past 28 years the average temperature for January has been higher in 5 and lower in 22 years than the average for the month in the present year, and the same one year. The highest average January temperature during this period was 32.1°, in 1913; the lowest, 15.0°, in 1904. The average temperature for the several states of the section, was as follows: Maine, 19.5°; New Hampshire, 23.5°; Vermont, 21.9°; Massachusetts, 30.4°; Rhode Island, 31.6°; Connecticut, 31.1°. The average temperature for the section was 4.7° above the normal. The departures from the normal for the several states were as follows: Maine, +4.4°; New Hampshire, +4.2°; Vermont, +3.5°; Massachusetts, +4.9°; Rhode Island, +2.8°; Connecticut, +5.3°. The highest monthly mean was 34.9°, at Westboro, Mass.; the lowest, 9.0°, at Van Buren, Me. The highest recorded was 70°, at Westboro, Mass., and Cream Hill, Me., on the 27th; the lowest, -29°, at Van Buren, Me., on the 8th. The greatest local monthly range was 82°, at Cornish, N. H., and Hyde Park, Vt.; the least, 43°, at Nantucket, Mass. The greatest daily range was 49°, at Bloomfield, Vt., on the 18th, and at Glencliff, N. H., on the 29th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 14 stations reporting, was 76 per cent, which was normal for the month. The highest monthly average was 83 per cent, at Northfield, Vt.; the lowest, 67 per cent, at Portland, Me.

## PRECIPITATION.

The average for the section, as shown by the records of 83 stations, was 1.63 inches, which was 3.69 inches below the average for January, 1915, and the smallest for any January in the record of section averages extending back to 1888, inclusive. The greatest average for any January during this period was 6.83 inches, in 1891. The average precipitation for the several states of the section was as follows: Maine, 1.82 inches; New Hampshire, 1.42; Vermont, 1.77; Massachusetts, 1.64; Rhode Island, 1.53; Connecticut, 1.44. The average precipitation for the section was 1.85 inches below the normal. The departures from the normal for the several states were as follows: Maine, -1.59 inches; New Hampshire, -1.60; Vermont, -0.96; Massachusetts, -2.10; Rhode Island, -2.76; Connecticut, -2.42. The greatest monthly amount was 4.00 inches, at Somerset, Vt.; the least, 0.60 inch, at Durham, N. H. The greatest amount in any 24 hours was 0.98 inch, at Somerset, Vt., on the 1st-2d. The average snowfall for the section was 8.8 inches, which was 3.3 inches below the average for January, 1915, and 5.7 inches below the normal for the month, as determined from the records of the past 29 years. The greatest average amount in any January during the period was 29.0 inches, in 1904; the least, 4.6 inches, in 1913. The average fall in the several states was as follows: Maine, 14.1 inches; New Hampshire, 10.8; Vermont, 14.2; Massachusetts, 5.0; Rhode Island, 1.1; Connecticut, 2.1. The number of days with .01 inch or more of precipitation was 10, 1 less than the normal number for the month.

## WIND.

The prevailing direction of the wind was from the northwest, which is the normal direction for the month, as determined from the records of the past 29 years. The average monthly wind movement for the section, 14 stations reporting, was 9,793 miles. The greatest monthly wind movement was 16,201 miles, at Block Island, R. I.; the least, 4,159 miles, at Concord, N. H. The average hourly velocity was 13.2 miles, which was 2.5 miles above the average for January, 1915, and 1.3 miles above the normal for the month. The highest recorded velocity was 66 miles per hour from the northwest, at Block Island, R. I., on the 3d. This is about the usual maximum velocity for the month.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 11; partly cloudy, 7; cloudy, 13, which was the same as in January, 1915. The normal for the month is 10 clear, 8 partly cloudy, and 13 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 44, which was the same as for January, 1915, and normal for the month. The greatest percentage of possible sunshine was 50, at Boston, Mass., and New Haven, Conn.; the least, 33, at Burlington and Northfield, Vt. The greatest percentage of possible sunshine in any January since the beginning of the automatic records in 1894, was 56, in 1896; the least, 34, in 1909.

## DATES OF MISCELLANEOUS PHENOMENA.

*Auroras.*—Patten, Me., 31; Burlington, Vt., 22.

*Halos, Solar.*—North Bridgton, Me., 4; Northfield, Vt., 4, 8; Woodstock, Vt., 4, 12, 15, 26; Blue Hill, Mass., 15, 16, 28; Boston, Mass., 16; New Haven, Conn., 15.

*Halo, Lunar:* Eastport, Me., 15, 16; North Bridgton, Me., 8, 9, 15, 20; Enosburg Falls, Vt., 9, 15, 17; Northfield, Vt., 16; Blue Hill, Mass., 13, 15, 16, 19, 20, 22; Boston, Mass., 15, 16, 19, 20, 22, 23, 25; Leominster, Mass., 15, 16, 19; Somerset, Mass., 15; Block Island, R. I., 15, 16, 19; Hartford, Conn., 15, 16, 19, 20; New Haven, Conn., 9, 13, 15, 16, 19, 21, 23.



## Climatological Data for January, 1916.

		Temperature, in degrees Fahr.										Precipitation, in inches.				No. of days—				Observer.
Stations.	Counties.	Elevation, feet.	Length of record, years.	Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.	Cloudy.	Prevailing direction of wind.	
Maine.																				
Bar Harbor	Hancock	20	30	26.5	+4.9	56	26	-12	18	34	1.89	-3.31	0.55	13.6	7	13	6	12	se.	William Miller.
Cornish	York	778	61	23.9	+3.9	64	28	-18	15	42	2.09	-1.74	0.60	15.5	10	7	11	13	w.	T. H. West.
Eastport	Washington	53	44	22.6	+2.5	48	22	-6	18	38	1.86	-1.98	0.61	14.2	15	6	12	13	w.	U. S. Weather Bureau.
Fairfield	Somerset	90	31	20.8	+5.0	50	26	-22	18	30	0.89	-2.14	0.35	9.0	5	17	4	10		E. F. Parker.
Farmington	Franklin	450	19	18.7	+3.6	52	28	-18	9	33	1.49	-1.91	0.36	12.0	13	10	9	12	nw.	State Normal School.
Gardiner	Kennebec	163	24	22.0	+4.4	55	28	-19	18	34	1.87	-1.84	0.57	11.0	15	13	3	15		Samuel D. Soule.
Greenville	Piscataquis	1,110	12	15.1		47	22	-16	18	44	2.35	-0.50	0.50	16.2	11					U. S. Weather Bureau.
Houlton	Aroostook	362	14	16.2		42	25	-14	8	36	2.15	-0.29	0.40	30.0	10	12	9	10	sw.	Bangor & Aroostook RR.
Lewiston	Androscoggin	185	33	22.4	+4.2	54	28	-10	18	37	1.84	-1.76	0.63	13.2	8	16	2	13	nw.	Union Water Power Co.
Madison	Somerset	257	13	17.0		52	23	-22	9	43	1.84	-1.99	0.38	11.0	14	14	1	16	w.	William Jardine.
Millinocket	Penobscot	386	13	17.2		46	26	-17	19	40	1.57	-1.88	0.54	12.5	10	14	8	9	nw.	Great Northern Paper Co.
North Bridgton	Cumberland	450	23	21.9	+3.5	59	26	-16	18	34	1.67	-1.88	0.54	12.5	10	14	8	9	nw.	C. L. Chadbourne.
Orono	Penobscot	129	47	23.4	+7.2	49	23	-14	18	42	2.59	-1.43	0.50	11.5	10	13	5	13	sw.	Maine State College.
Patten	do	550	14	13.4		55	28	-25	18	45	2.70	-2.37	0.60	7.0	2	8	2	17	ne.	Bangor & Aroostook RR.
Portland	Cumberland	99	45	26.6	+4.6	61	26	-1	15	41	2.15	-1.66	0.91	12.2	11	13	2	16	sw.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	7	10.4		42	11	-25	7	46	2.20	-0.22	0.60	21.0	10	15	4	12	n.	E. M. Libby.
Rumford	Oxford	505	23	20.4	+3.9	53	28	-6	9	47	1.33	-1.75	0.49	12.8	8	15	6	16	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	12	9.0		38	22	-29	8	39	2.69	+0.39	0.62	22.5	9	16	2	13	nw.	Rev. J. M. Thomas.
Winslow	Kennebec	90	21	22.3	+4.5	51	26	-14	8	38	1.07	-2.05	0.42	8.5	6	10	8	13	s.	Hollingsworth & Whitney.
New Hampshire.																				
Alstead Center	Cheshire	1,120	12	23.2	+4.2	53	28	-8	9	32	1.28	-1.52	0.37	15.0	10	17	3	11	sw.	Frank Dewing.
Bethlehem	Grafton	1,470	24	20.2	+4.8	54	24	-13	9	42	1.69	-0.70	0.40	10.5	13	10	4	17	sw.	Benjamin Tucker.
Concord	Merrimac	350	56	25.8	+4.6	62	26	-9	18	36	1.22	-2.12	0.47	12.1	8	12	7	12	nw.	U. S. Weather Bureau.
Durham	Stafford	88	21	26.1	+3.4	60	26	-7	8	33	0.60	-2.84	0.20	2.5	7	8	10	13	nw.	N. H. Agr. College.
Franklin	Merrimac	440	17	24.1	+3.5	56	28	-11	18	36	1.58	-1.43	0.54	12.8	6	12	8	11	nw.	Dr. C. P. Webster.
Glencoff	Grafton	1,650	3	18.8		54	27	-11	9	49	1.99	-0.81	0.36	13.0	11	9	9	13	nw.	State Sanatorium.
Grafton	do	863	30			54	26	-20	15	38	1.29	-1.46	0.33	9.4	10	8	5	18	n.	P. R. Kimball.
Hanover	do	603	82	21.5	+4.6	54	26	-17	15	37	1.57	-1.08	0.49	11.5	9	12	7	12	nw.	Dartmouth College.
Keene	Cheshire	506	31	24.2	+3.3	55	26	-17	15	37	1.57	-1.08	0.49	11.5	9	12	7	12	nw.	Samuel Wadsworth.
Nashua	Hillsboro	125	31	27.5	+5.0	65	26	-2	15	30	1.13	-2.40	0.47	8.2	6	10	8	13	sw.	C. B. Stevens.
Newton	Rockingham	126	28	26.7	+3.7	61	28	-8	28	36	1.48	-1.85	0.63	8.5	7	10	12	9	nw.	W. C. Gale.
Plymouth	Grafton	500	28	20.8	+4.4	52	28	-14	18	37	1.77	-1.38	0.45	15.2	11	13	3	15	w.	Mrs. Hattie G. Trow.
Vermont.																				
Bloomfield	Essex	404	9	18.4		50	28	-25	15	49	1.82	-0.48	0.39	20.5	11	10	3	18	s.	Lyman Falls Power Co.
Burlington	Chittenden	910	13	23.2	+6.9	56	28	-9	9	42	0.87	-0.96	0.47	8.6	13	4	8	19	s.	U. S. Weather Bureau.
Cavendish	Windsor	840	21	18.2	+3.2	51	28	-21	7	45	2.06	-0.31	0.50	12.0	9	8	11	12		Colonial Power Co.
Chelsea	Orange	517	23	23.0	+3.7	52	26	-10	9	39	1.73	-0.96	0.35	18.0	9	10	5	16	s.	W. F. Dewey.
Cornwall	Addison	601	25	20.4	+4.3	54	22	-21	8	38	1.82	-0.56	0.44	13.0	14	11	7	13	sw.	C. H. Lane.
Enosburg Falls	Franklin	576	14	20.8		59	28	-23	15	41	1.70	-0.44	0.40	18.0	12	11	7	13	sw.	J. W. Pomeroy.
Hyde Park	Lamoille	876	30	22.2	+7.1	60	28	-16	8	47	1.14	-1.35	0.29	11.9	14	5	7	19	s.	A. V. Wiswell.
Northfield	Washington	2,096	5	23.4		56	27	-12	9	38	4.00	-0.98	11.5	13	7	7	17	nw.	U. S. Weather Bureau.	
Somerset	Windham	711	23	19.6	+4.7	53	28	-23	15	36	1.93	-0.28	0.48	18.9	14	9	7	15	s.	Power Construction Co.
St. Johnsbury	Caledonia	310	1	25.6	+5.0	54	28	-8	9	32	1.46	-2.23	0.60	9.8	7	6	13	12	sw.	Fairbanks Museum.
Vernon	Windham	750	25	23.0	+4.8	50	26	-10	15	36	1.46	-1.12	0.49	6.0	8	7	8	16	sw.	Conn. River Power Co.
Wells	Rutland	700	24	24.2	+8.8	61	28	-15	9	43	1.79	-1.06	0.71	12.0	8	7	7	19	sw.	E. R. Pember.
Woodstock	Windsor	700	24	24.2	+8.8	61	28	-15	9	43	1.79	-1.06	0.71	12.0	8	7	7	19	sw.	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	27	27.8	+4.2	58	28	-5	15	32	2.56	-1.07	0.57	5.0	9	13	15	3	sw.	Mass. Agr. College.
Blue Hill	Norfolk	640	32	28.0	+3.0	60	26	-1	15	30	1.84	-2.20	0.52	6.4	12	10	6	15	sw.	Blue Hill Observatory.
Boston	Suffolk	124	46	33.0	+6.0	66	22	-4	15	36	1.23	-2.59	0.73	4.8	9	9	7	15	sw.	U. S. Weather Bureau.
Chestnut Hill	do	124	36	31.3	+4.9	64	26	-2	15	30	1.87	-2.28	0.65	4.8	11	22	0	9		Met. Water Board.
Clinton	Worcester	370	20	26.6		62	28	-1	14	46	1.54	-2.17	0.72	6.0	12	16	3	12		Do.
Concord	Middlesex	139	26	28.8	+4.5	64	26	-0	15	37	1.35	-1.99	0.65	6.7	13	10	10	11	sw.	Fred A. Tower.
Fall River	Bristol	200	50	33.4	+5.2	61	26	-5	15	26	1.48	-8.01	0.72	1.4	13	4	18	9	sw.	C. V. S. Remington.
Fitchburg	Worcester	550	33	28.8	+4.5	61	26	-1	15	28	1.32	-2.03	0.48	7.5	8	16	4	11	w.	Dr. A. P. Mason.
Frankingham	Middlesex	160	36	29.8	+4.1	63	26	-0	15	30	1.50	-2.44	0.49	3.8	10				sw.	Met. Water Board.
Lawrence	Essex	51	32	28.8	+5.0	62	26	-0	15	32	1.81	-1.81	0.70	9.8	12	6	18	7	sw.	Essex Company.
Lowell	Middlesex	100	31	29.8	+6.0	59	26	-1	15	33	1.56	-2.21	0.91		10				sw.	Props. Locks & Canals.
Nantucket	Nantucket	47	30	33.9	+1.8	53	28	-10	15	33	2.03	-1.39	0.66	0.5	16	7	6	17	sw.	U. S. Weather Bureau.
New Bedford	Bristol	88	104	34.1	+5.8	64	28	-3	15	36	1.61	-2.38	0.60	1.5	9	14	5	12	w.	City Engineer.
Plymouth	Plymouth	50	31	30.2		62	29	-3	15	45	1.58	-2.60	0.75	3.0	11	18	2	11	sw.	Miss L. B. Knapp.
Provincetown	Barnstable	40	29	32.5	+2.7	57	28	-10	15	21	1.30	-2.85	0.20	6.0	10	14	6	11	w.	Gideon Bowley.
Rockport	Essex	25	14	31.9		62	26	-5	15	27	1.13	-0.31	7.8	11	15	11	5	sw.	U. S. C. G. Station.	
Rutland	Worcester	1,160	14	26.0		61	27	-5	15	44	1.81	-0.61	4.0	12	14	6	11	sw.	State Sanatorium.	
Springfield	Hampden	199	6	31.2	+6.2	63	27	-1	15	29	1.40	-2.03	0.40	3.8	13	12	8	11	nw.	U. S. Army.
Turners Falls	Franklin	200	10	27.0	+5.4	55	28	-6	15	30	2.38	-0.84	0.81	7.2	9	11	2	18	w.	Turners Falls Co.
Westboro	Worcester	298	42	34.9	+9.4	70	27	-5	15	32	1.46	-2.29	0.58	2.8	8				nw.	Miss E. W. Newcomb.
Williamstown	Berkshire	711	35	25.8	+4.0	57	27													



## Daily Precipitation for January, 1916.

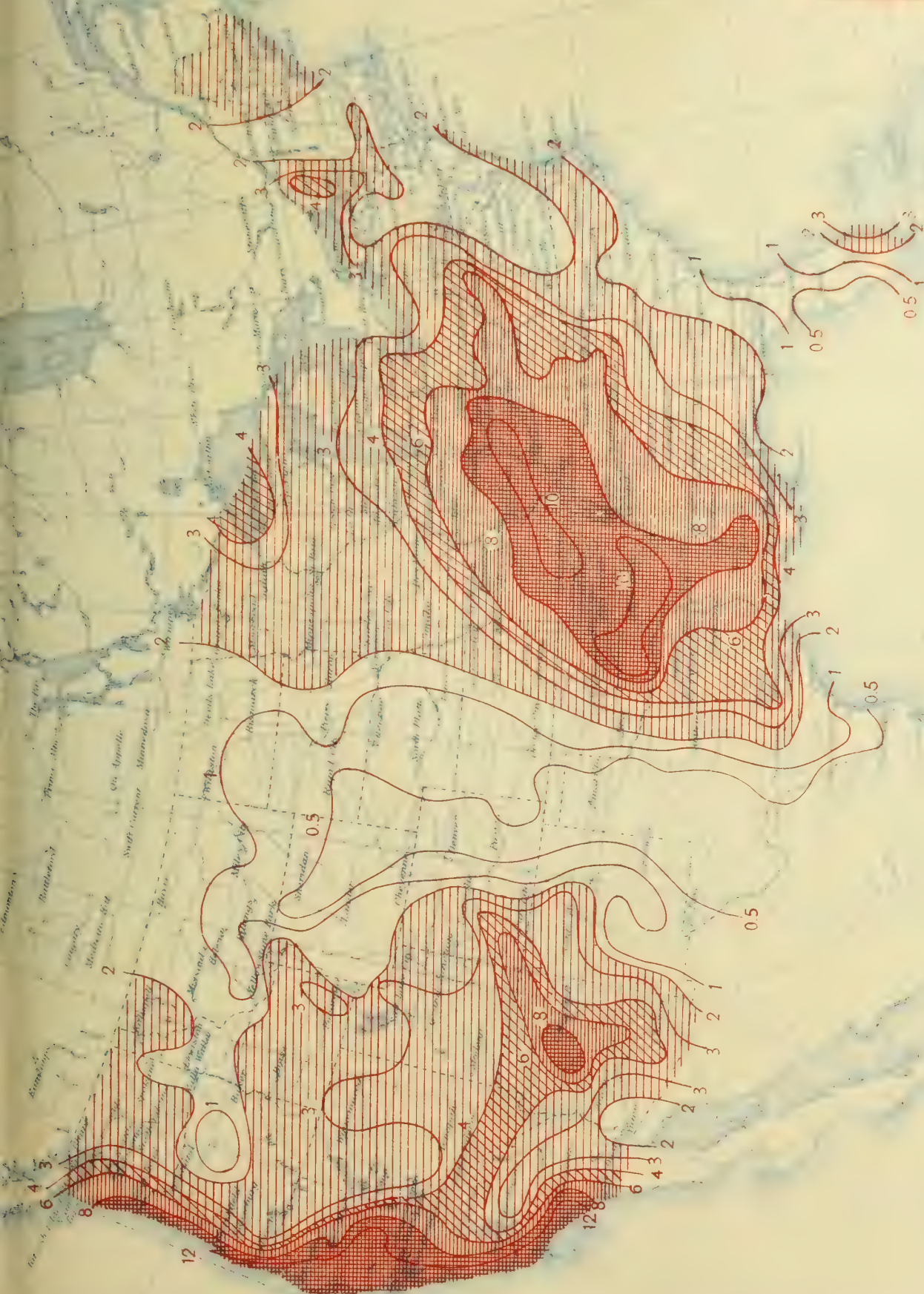
		Day of month.																															
Stations.	Watershed.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Maine.																																	
Ashland	St. John	.06	.20	T.	.01	.09					.04	T.		.21									.09	.01				.16					
Bar Harbor	Coast	.20	.50		.02						.55		T.	.02			.10	.20			T.	T.											
Cambridge	Kennebec		.30			.30					.36			.02				T.			.21		.21										
Cornish	Saco	.15	.50	T.		.08					.60			.10			.05	T.			.21		.02										
Danforth	Penobscot	*	.35			.06					.32	.07	.30				.10				.08		.10					.02					
Eastport***	Coast	.12	.32	.34		.01					.41	.03	.09	T.			.09	.12	.02				T.					.11	.11				
Eustis	Kennebec	.11	.37	.29	.02	.06	.06				.15	T.	T.	.18	T.		T.	.05	T.	.01		.02	.01	T.	T.			.11	.26	T.			
Fairfield	do	.05	.35								.22		.17										.10										
Farmington	do	.08	.36	.18	T.		.05				.30			.17			.03	.05			.08		.08	T.				.05	.04		.04		
Gardiner	do	.09	.35	.09		.18	.05				.57	.01	.19				.09	.03			.05	.12						.01	.05				
Greenville**	do	.50	.50	.10		.16					.35		.21				T.	T.	T.	T.	.05	.08	.06	T.				.06	.28	T.			
Houlton	St. John		.25	.05		.10	.35				.10		.20								.10	.20											
Howe Brook	Penobscot		.06	.10							.10		.12																				
Lewiston	Androscoggin	.11	.10	.04	T.	.13					.67		.33				.11	.06			.21	T.						.11					
Madsen	Kennebec	.08	.43			.34					.46										.06	.12											
Millbrook	Penobscot	.10	.35		.01	.07					.38		.02	.14		T.	.02			T.	T.	.01	.08	T.				.01	.12				
North Bridgton	Saco	.07	.40	.06		T.	.02				.54		.34					.02			.14	T.	T.					.05	.05				
Oquossoc	Androscoggin		.08			.20					.20												.45						.40				
Orono	Penobscot	.50	.30			.70					.20	.18		.11								.15	.29						.26				
Patten	do	.10									.60												T.										
Portland***	Coast	.13	.58		.01	.05					.87	.04	.21			T.	T.	.03			.16	T.							T.	.02			
Presque Isle	St. John		.60	.10	.20						.30	T.	.20					.10	T.			.10	.20						.30	.10			
Rumford	Androscoggin	.10	.49	.04		T.					.40		.16				T.	T.	T.		.04	T.	T.						.02				
Van Buren	St. John		.62		.30	.06					.25		.10									.15							.08				
Winslow	Kennebec		.42								.40		.09				.06					.04							T.	T.	T.	T.	
New Hampshire.																																	
Alstead Center	Connecticut	.06	.37	T.		.02	.03				.29		.31				T.				.05		.07	T.				.06					
Bethlehem	do	.10	.40	.10		.08					.10	T.		.18			T.	.05	T.	T.		.04	.02	.08				.13	.07		.08		
Brookline	Merrimack	.05	.60			.02					.35		.25								.25		.02										
Concord***	do	.07	.47	T.		.06					.29		.17				T.	T.										.02					
Durham	do	.08	T.			.10	.05				.20		.05								.06									.04			
Franklin	do	.09	.54	T.		T.	.63				.41		.36				T.	T.			.15	T.											
Glencliff	do	.20	.36			.15					.30						.05	.10	T.		.35		.09										
Grafton	do																											.25					
Hanover	Connecticut	.10	.32	.06	.01	.10	T.				.21		.33				.02		T.		.10		.04										
Keene	do	.10	.49	T.		.04					.38		.37								.06	.06	.04										
Nashua	Merrimack	.10	.47	T.							.30		.22								.02												
Newton	do	.21	.63	T.		.14					.23		.19				T.	.05			.03		T.										
Plymouth	do	.18	.26	.66		T.	.14				.45	T.	.30				T.	.06	T.		.32	T.	.02							.03			
Vermont.																																	
Bloomfield	Connecticut	.16	.39	.27		.12					.18		.28				.12				.05	.67	.06					.05	.12				
Burlington***	Champlain	.10	.43	T.		.03	T.	.01			.10	.01	.01				T.	.01		T.		.05	.01	.01				T.	T.	.04	T.		
Cavendish	Connecticut	.50	.30	.20		.12					.32		.45								.06	.06											
Chelsea	do	.14	.35	.35	.10						.20		.15								.20		.12										
Danville	Champlain	.10	.40	.12		.05					.15		.10								.15		.03						.05	T.	.12		
Enosburg Falls	do	.10	.44	.17		.13					.18	.05	.11				.05		.04		.14	T.	.15						.02	.20		.04	
Hyde Park	do	.10	.44	.13	T.						.40		.09				.07	.06			.19	.07	.03					.02	.10				
Northfield***	Champlain	.07	.29	.10	T.	.09	T.				.15	T.	.13	T.	.01	.01	.01				.13	T.	.01					.03	.10		.04		
Somerset	Connecticut	.05	.98		.08	.50	.43				.15	.21	.71				.18					.50							.03	.04		.04	
St. Johnsbury	do	.12	.48	.12		T.	.07				.28	T.	.25				.08	.04	.02	.13		.19	.06	.09				.07	.06	T.	T.		
Vernon	do	.60	.12			.06					.25		.12	T.							.22		.09										
Wells	Champlain		.34	T.		.08	.19				.09		.49									.06		.15									
Woodstock	Connecticut	T.	.71	.06		.25					.20		.37				.03				.13	T.	.04										
Massachusetts.																																	
Amherst	Connecticut	.18	.62	.11		.11					.48		.77				T.	T.			.09							.08		.12			
Ashland	Merrimack	*	.70	.01		.16					.23		.17				.05				.02		.03					.07		*	.10		
Bakers Bridge	do	.19	T.	.53	1.08						.13		.12				T.				.02	T.											
Bedford	do	.19	.69	T.		.09					.22		.13				T.	.03			.03		T.					.05	T.				
Blue Hill	Coast	.52	.43	T.	T.	.09	.03				.29		.09				.04	T.			.05		.05					.06		.07	.12		
Boston***	do	.32	.50	.02		.08					.13		.13				T.				.01		T.						.01		.03	T.	
Brockton	Coast	.48	.29	T.		.10					.52	T.	.03				.05	.03			.04	T.	.06						.04	T.		.01	
Chestnut Hill	do	.30	.65		.07	.09					.34		.04				.05				.04	T.	.05										
Clinton	Merrimack	*	.72		*	.22					.22		.17				.02				.02		.03						.06		*	.08	
Concord	do	.18	.63	.01	T.	.10					.20		.13				.02	.01			.01		.01	T.					.02		.01	.02	
Fall River	Coast	.50	.22			.02	.02				.54		.03				.05	.02			.02	.02							.01	.02	.01	.48	
Fitchburg	Merrimack	.13	.48	T.		.12	T.				.31		.19				T.	T.			.02		.03							.02	.01		
Framingham																																	



## Daily Temperatures for January, 1916.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean.		
Maine.																																		
Bar Harbor	Maximum	25	32	35	42	50	39	30	18	20	36	36	34	35	33	32	34	29	18	26	35	38	54	49	46	49	56	42	32	38	46	44	36.2	
	Minimum	15	22	21	27	14	2	2	-1	2	16	24	18	4	4	18	-5	-12	10	18	24	36	36	38	32	38	32	16	17	24	23	16.8		
Cornish	Maximum	27	18	14	34	44	45	28	23	27	51	30	36	35	24	32	26	21	32	29	46	56	47	41	50	58	41	64	36	37	47	37.3		
	Minimum	7	6	17	10	21	7	5	-16	-13	-2	24	6	21	4	-18	6	2	-17	3	2	23	31	26	17	19	35	31	25	8	14	29	10.5	
Eastport	Maximum	19	25	33	23	43	15	13	9	14	38	40	28	34	32	15	31	25	16	20	34	36	48	46	30	41	47	41	46	19	37	42	31.1	
	Minimum	12	9	17	16	17	10	2	-3	-1	11	27	18	22	1	5	15	-6	-6	10	10	28	36	23	13	30	39	25	8	3	12	36	13.8	
Greenville	Maximum	22	17	23	14	29	39	5	5	15	27	34	22	28	32	12	22	17	2	15	19	35	47	42	32	36	45	40	44	15	28	32	25.7	
	Minimum	15	2	10	7	10	4	-11	-9	-10	-6	12	7	16	-6	-10	-3	-13	16	-8	3	18	28	-1	4	18	30	21	13	-4	-1	25	8.9	
Millinocket	Maximum	20	17	27	20	32	46	10	7	17	30	37	31	28	30	13	23	19	7	19	21	39	42	46	28	38	42	42	42	19	29	35	27.6	
	Minimum	14	-5	9	19	11	10	16	7	-10	27	12	17	4	8	0	-6	-12	-17	-5	19	28	24	7	20	31	20	19	0	0	22	6.8		
Orono	Maximum	23	23	20	29	37	45	35	22	24	31	41	41	33	34	22	26	31	28	22	25	36	47	49	49	45	47	47	44	39	34	39	34.8	
	Minimum	13	5	9	15	15	23	-3	10	-12	-1	12	14	23	13	-7	10	-3	-4	-7	2	20	33	35	13	24	38	25	24	4	3	32	12.1	
Portland	Maximum	24	20	35	27	40	47	11	17	23	39	44	31	39	33	19	30	28	21	26	31	42	54	44	35	48	61	50	60	32	34	49	35.6	
	Minimum	18	11	14	15	24	14	8	3	1	7	30	42	30	15	12	10	15	18	2	14	18	25	38	40	20	38	37	30	18	20	18	21.5	
Presque Isle	Maximum	9	8	22	18	30	49	8	1	7	30	42	30	15	12	10	15	18	2	14	18	25	38	40	20	38	37	30	18	20	18	35	21.5	
	Minimum	0	-14	6	4	2	7	-25	-25	32	16	-20	15	10	-4	-23	-9	6	20	-17	-8	12	20	19	0	10	30	12	13	-11	-14	18	-0.7	
Rumford	Maximum	24	16	30	22	38	42	16	12	22	26	40	28	36	32	18	21	18	12	20	23	38	52	36	34	38	41	37	53	25	30	39	29.6	
	Minimum	7	10	14	10	20	10	-5	0	6	1	21	12	25	-2	-6	0	-4	6	-4	6	24	34	26	17	32	32	29	16	6	12	29	11.3	
Van Buren	Maximum	18	14	20	21	28	27	15	3	6	23	37	33	25	25	5	16	14	1	7	18	27	38	38	15	37	36	29	13	15	17	33	21.4	
	Minimum	-5	-8	7	5	7	8	-24	-29	-22	-15	22	7	6	-10	-19	-16	-14	-24	-21	-21	-1	18	20	-4	7	26	9	-10	-5	-15	15	-3.4	
New Hampshire.																																		
Alstead Center	Maximum	25	22	33	19	34	41	15	11	15	33	30	28	34	32	12	27	27	15	18	25	42	50	45	36	43	52	50	53	28	30	44	31.6	
	Minimum	13	16	18	5	15	43	45	21	7	16	32	40	22	38	31	10	26	24	11	17	27	40	54	43	36	45	52	53	19	31	53	31.6	
Bethlehem	Maximum	18	24	28	16	43	45	21	7	16	32	40	22	38	31	10	26	24	11	17	27	40	54	43	36	45	52	53	19	31	53	31.6		
	Minimum	4	9	19	5	11	3	-2	12	-13	2	22	5	16	-8	-18	8	-9	-11	7	3	22	34	21	14	24	34	40	17	0	7	27	8.9	
Concord	Maximum	24	21	35	26	49	49	22	17	23	28	41	26	37	31	18	80	27	22	24	35	44	56	41	39	49	62	46	58	28	34	55	35.5	
	Minimum	12	17	16	12	25	13	0	3	-5	7	24	17	25	-1	-2	18	3	-9	11	7	22	35	36	27	23	28	39	33	22	13	16	32	16.2
Franklin	Maximum	23	19	36	25	40	48	24	16	28	24	42	31	37	35	21	27	24	20	27	34	52	48	41	49	55	48	56	29	31	46	24	33.9	
	Minimum	9	13	11	10	19	12	-5	0	-5	4	23	15	24	3	-6	10	8	11	4	9	22	31	26	19	23	33	35	25	10	24	30	13.9	
Hanover	Maximum	18	21	31	20	39	44	4	-6	-13	-1	0	28	10	18	-4	-20	12	-1	-13	7	4	27	37	26	12	30	33	36	22	6	11	31	10.5
	Minimum	6	12	16	6	16	4	1	1	9	17	29	42	28	36	34	15	27	27	18	22	28	41	52	47	42	44	54	46	54	24	32	44	22.5
Nashua	Maximum	25	24	38	26	48	49	26	19	26	32	40	35	38	37	23	35	30	23	26	32	44	56	52	38	50	65	57	59	36	36	36	36.1	
	Minimum	14	22	28	12	36	20	12	3	-1	18	30	19	26	7	-2	17	10	-2	9	18	36	36	34	22	30	40	37	33	15	18	18	18.9	
Plymouth	Maximum	33	19	32	20	33	46	15	9	19	20	39	33	38	37	14	20	22	14	21	19	42	50	39	35	39	45	40	52	25	28	40	30.3	
	Minimum	8	8	18	10	19	15	-5	-1	-2	10	12	21	0	-4	8	5	-14	-8	5	18	33	29	18	15	26	33	24	9	11	28	11.2		
Vermont.																																		
Burlington	Maximum	23	39	38	27	47	45	13	5	18	38	41	30	38	23	14	27	21	11	24	34	43	50	37	38	44	50	50	56	20	35	50	33.2	
	Minimum	16	16	13	7	21	7	-1	1	-8	-9	17	14	8	23	-5	-7	14	-4	11	9	34	36	24	20	35	29	27	14	3	12	35	13.3	
Enosburg Falls	Maximum	16	34	34	23	43	43	14	4	12	33	39	20	39	32	16	27	25	14	20	28	40	54	42	41	46	46	49	40	25	34	53	31.3	
	Minimum	0	4	12	7	23	6	-6	-21	-19	2	19	-1	19	-6	-15	10	-9	-13	12	-5	28	35	23	13	39	33	39	22	1	8	32	9.0	
Northfield	Maximum	20	28	35	21	40	48	15	5	15	42	44	27	40	25	13	31	22	14	21	38	41	57	36	35	48	55	63	60	20	32	58	33.8	
	Minimum	3	16	11	6	20	1	-16	-16	10	13	1	25	-8	-14	11	0	-12	6	22	30	38	45	48	41	43	52	46	53	22	30	45	30.9	
St. Johnsbury	Maximum	18	22	30	20	39	44	18	-10	-21	-22	-4	28	0	17	0	-23	9	-2	17	3	-4	21	34	26	10	31	36	34	22	2	7	29	8.3
	Minimum	-1	5	16	5	14	12	-10	-21	-22	-4	28	0	17	0	-23	9	-2	17	3	-4	21	34	26	10	31	36	34	22	2	7	29	8.3	
Wells	Maximum	28	32	32	20	40	40	16	12	10	34	31	30	34	32	12	25	25	12	20	28	42	48	44	34	44	50	50	45	30	34	48	31.8	
	Minimum	6	10	20	0	17	15	8	-7	-6	6	28	10	20	-4	-10	10	4	4	8	12	28	38	24	16	28	38	43	30	5	10	30	14.9	
Massachusetts.																																		
Amherst	Maximum	33	36	36	29	43	45	27	16	23	35	40	25	37	31	19	32	24	19	23	36	43	51	43	41	48	53	55	58	34	33	51	36.1	
	Minimum	20</																																







Stations.	Watershed.	Day of month.																														Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Rhode Island.																																
Block Island ***	Coast	.05	.23	T.		.12	.04				.74	.01	T.	.02	T.		.14		T.		T.	.01	.07						.07		.18	.01
Bristol	do	*	.53			*	.07				* .39			.06			.01	.01			T.		T.	.12					.02			.02
Greene	do		.50			.03					.43			.05			.03															.08
Hope Valley	do					.83					.15			.04		.15													.10		.04	.06
Kingston	do	.13	.32		.24						.52			.10		.07	.08				.04			.12					.05		.17	.13
Narrag'sett Pier***	do	.10	.28	T.	.06	.19					.54		.01	.05	T.		.08		T.		T.		.08	.05			T.	.07		.10	.05	
Pawtucket	do	*	.64	T.	.04	.10					.50			.06			.01					.05						.01		.16		.13
Providence***	do	.12	.31	T.	.15	.01					.45		T.	.05	T.		.03	.01			.02	T.	.07					.01		.11	.01	.13
Wallum Lake	do	.30	.15		.20						.30			.10			.10				T.		.23							.26		.13
Connecticut.																																
Bridgeport	Coast	.21	T.		.06						.54	.01	T.	.27		.08	.03				T.		.09				T.	.04			.30	.03
Canton	Connecticut	T.	.35		.11						.39		T.	.15			T.	.03			T.		.03						T.	.12		.11
Colchester	Coast	T.	.30	T.		.16	.05				.60		T.	.17		.10	.10				T.		.17							.02	.09	.11
Cream Hill	Housatonic.	.05	.20		.22	.09					.55		T.	.20		.05	.10					.05		.10						.15	.10	.11
Danielson	Coast	T.	.50	T.		T.					.40			.05		.10	.20					.05		.50								.23
East Hartland																																
Falls Village	Housatonic.	.07	.26		.17						.44			.15		.16						.07				T.		.06		.10		.11
Hartford **	Connecticut	.02	.50	T.	.05						.27		T.	.16		.02					T.		.01					.01		.11	T.	.11
Hawleyville	Housatonic.																															.15
Lake Konomoch	Coast		.29			.10					.81			.13			.12											.01	.08		.21	.02
New Haven***	do	.01	.24	T.	.03	.01					.54	.02	.02	.20		T.	.07	.03			T.	.02	.03	.01			.01	.08		.10	.14	.11
New London	do		.03	T.	.07																											

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight. \* Precipitation indicated in that of following day.  
T. Precipitation is less than 0.01 inch rain or melted snow.  
†† Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.

[illegible]



Stack

U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

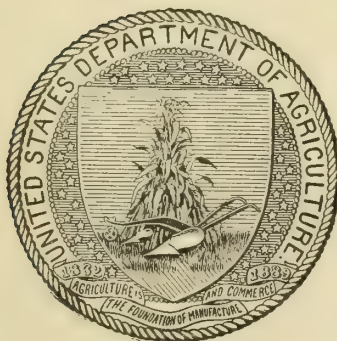
## NEW ENGLAND SECTION

FEBRUARY, 1916

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BY  
JOHN W. SMITH  
DISTRICT FORECASTER AND SECTION DIRECTOR

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
MARCH 20, 1916



Departure of the Mean Temperature from the Normal, February, 1916.



Shaded portions show excess (+).  
Unshaded portions show deficiency (-).  
Lines show amount of excess or deficiency.



## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, District Forecaster and Section Director.

VOL. XXVIII. BOSTON, MASS., FEBRUARY, 1916. No. 2.

## GENERAL SUMMARY.

The average temperature was somewhat below and the average precipitation above the normal for the month. During the first week generally moderate temperatures for the season prevailed, the highest for the month occurring on the first at the majority of the stations. During the second and third decades the temperature was generally below the normal, the coldest periods of the month being on the 14th and 15th, and 21st and 22d, on which dates minimum temperatures of zero or below were general in the northern states, but in the southern states were confined to scattered stations. Precipitation occurred frequently and was well distributed through the month, although unevenly over the section, the amount in the southern states being nearly as great as in Vermont and the other northern states. The average snowfall was the greatest since 1899. The heaviest snowfalls were on the 2-3d and 12-13th, when from 6 to 12 inches fell. The amount on the ground gradually increased from the beginning until about the middle of the month, afterwards diminishing until the close of the month, when little or none remained on the coast, and from 6 to 12 inches in the interior of the section. The cold weather during the latter part of the month permitted the harvesting of an excellent crop of ice.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 15 stations reporting, was 29.98 inches, which was .06 inch below the normal for the month. The highest monthly mean was 30.02 inches, at Burlington, Vt.; the lowest, 29.91 inches, at Eastport, Me. The highest recorded was 30.75 inches, at Burlington, Vt., on the 14th; the lowest, 28.72 inches, at Eastport, Me., on the 14th. The monthly range for the section was 2.03 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 15 stations, was 20.3°, which was 7.9° below the mean for February, 1915. During the past 28 years the average temperature for February has been lower in 6 and higher in 22 years than the average for the month in the present year. The highest average February temperature during this period was 30.3°, in 1900; the lowest, 15.9°, in 1907. The average temperature for the several states of the section, was as follows: Maine, 16.8°; New Hampshire, 18.6°; Vermont, 16.2°; Massachusetts, 23.7°; Rhode Island, 25.0°; Connecticut, 22.9°. The average temperature for the section was 2.3° below the normal. The departures from the normal for the several states were as follows: Maine, -0.5°; New Hampshire, -2.0°; Vermont, -1.8°; Massachusetts, -2.4°; Rhode Island, -4.3°; Connecticut, -3.6°. The highest monthly mean was 29.8°, at Nantucket, Mass.; the lowest, 9.8°, at Presque Isle, Me. The highest recorded was 34°, at Cornish, Me., on the 1st; the lowest, -34°, at Enosburg Falls, Vt., on the 14th. The greatest local monthly range was 87°, at Enosburg Falls, Vt.; the least, 44°, at Block Island, R. I. The greatest daily range was 53°, at Patten, Me., on the 25th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 14 stations reporting, was 76 per cent, which was 1 per cent above the normal for the month. The highest monthly average was 84 per cent, at Northfield, Vt., and Block Island, R. I.; the lowest, 66 per cent, at Rutland, Me.

## PRECIPITATION.

The average for the section, as shown by the records of 84 stations, was 4.17 inches, which was 0.03 inch above the average for February, 1915, and the greatest for the month since 1909. During the past 28 years the average February precipitation has been less in 23 years and greater in 5 years than that of the present year. The greatest average February precipitation during this period was 7.13 inches, in 1900; the least, 0.96 inch, in 1901. The average precipitation for the several states of the section was as follows: Maine, 3.42 inches; New Hampshire, 3.63; Vermont, 2.80; Massachusetts, 4.84; Rhode Island, 5.12; Connecticut, 5.38. The average precipitation for the section was 0.90 inch above the normal for the month. The departures from the normal for the several states were as follows: Maine, +0.33 inches; New Hampshire, +0.70; Vermont, +0.34; Massachusetts, +1.33; Rhode Island, +0.98; Connecticut, +1.62. The greatest monthly amount was 6.38 inches, at Rutland, Mass.; the least, 1.53 inches, at Williamstown, Mass. The greatest amount in any 24 hours was 3.04 inches, at Hartford, Conn., on the 25th. The average snowfall for the section was 22.4 inches, which was 14.1 inches above the average for February, 1915, and 5.8 inches above the normal for the month, as determined from the records of the past 29 years. The greatest average amount in any February during this period was 39.1 inches, in 1893; the least, 7.8 inches, in 1912. The average fall in the several states was as follows: Maine, 19.5 inches; New Hampshire, 24.0; Vermont, 22.7; Massachusetts, 24.2; Rhode Island, 15.3; Connecticut, 24.7. The average number of days with .01 inch or more of precipitation was 13, 2 more than the normal number for the month.

## WIND.

The prevailing direction of the wind was from the northwest, which is the normal direction for the month, as determined from the records of the past 29 years. The average monthly wind movement for the section, 15 stations reporting, was 8,782 miles. The greatest monthly wind movement was 15,532 miles, at Block Island, R. I.; the least, 4,412 miles, at Concord, N. H. The average hourly velocity was 12.5 miles, which was 1.0 mile above the average for February, 1915, and 0.1 mile above the normal for the month. The highest recorded velocity was 72 miles per hour from the northwest, at Block Island, R. I., on the 19th. This is about the usual maximum velocity for the month.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 10; partly cloudy, 6; cloudy, 13, which was the same as in February, 1915, and compares with the normal for the month of 11 clear, 7 partly cloudy, and 11 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 43, which was 6 per cent below the average for February, 1915, and 12 per cent below the normal for the month. The greatest percentage of possible sunshine was 48, at Burlington, Vt.; the least, 35, at Northfield, Vt. The greatest percentage of possible sunshine in any February since the beginning of the automatic records in 1893, was 65, in 1901; the least, 36, in 1897.

## DATES OF MISCELLANEOUS PHENOMENA.

*Aurora.*—Franklin, N. H., 3.

*Halos, Lunar.*—North Bridgton, Me., 7, 11, 13, 14, 15; Bethlehem, N. H., 9; Enosburg Falls, Vt., 20; Northfield, Vt., 8; Woodstock, Vt., 10, 13; Somerset, Mass., 8; New Haven, Conn., 13, 17.

*Halos, Solar.*—Enosburg Falls, Vt., 19, 20; Northfield, Vt., 5, 8, 9, 11; Woodstock, Vt., 11; Blue Hill, Mass., 5, 8, 11, 16, 22, 29; Boston, Mass., 5, 11, 15, 16, 20, 22, 29; Somerset, Mass., 6, 11, 15; New Haven, Conn., 5, 6, 8.



## Climatological Data for February, 1916.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.					Precipitation, in inches.					No. of days—				Observer.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	(greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.		Cloudy.	Prevailing direction of wind.
Maine.																				
Bar Harbor	Hancock	20	30	20.3	-2.3	44	1†	-19	15	44	3.52	-0.85	0.80	29.0	10	5	9	15	nw.	William Miller.
Cornish	York	778	61	21.0	-0.4	59	1	-15	15	47	5.83	+1.98	2.47	23.5	14	8	7	14	ne.	T. H. West.
Eastport	Washington	53	44	19.3	-2.1	49	1	-12	21	30	2.65	-0.97	0.64	21.8	15	7	6	16	w.	U. S. Weather Bureau.
Fairfield	Somerset	90	31	21.2	+3.1	46†	1	-5	14	49	1.72	-0.99	0.75	14.2	7	13†	7	8	.....	E. F. Parker.
Farmington	Franklin	450	19	17.4	-0.1	49	1	-18	15	44	4.21	+1.06	1.75	19.0	12	10	8	11	nw.	State Normal School.
Gardiner	Kennebec	163	24	19.0	-0.9	52	1	-16	15	44	3.85	+0.41	1.20	15.5	12	14	2	13	nw.	Samuel D. Soule.
Greenville	Piscataquis	1,140	12	11.9	.....	44	1†	-22	21	38	3.34	+0.59	0.98	20.8	13	.....	.....	.....	.....	U. S. Weather Bureau.
Houlton	Aroostook	362	24	11.9	.....	42	26	-19	12†	42	3.20	+1.08	1.20	24.0	7	15	8	6	n.	Bangor & Aroostook RR.
Lewiston	Androscoggin	185	33	17.8	-2.1	48	1	-18	14†	39	4.64	+0.80	1.70	17.5	12	8	8	13	nw.	Union Water Power Co.
Madison	Somerset	257	13	15.8	.....	45	2	-17	15	40	3.91	-1.08	1.25	15.5	11	13	6	10	w.	William Jardine.
Millinocket	Penobscot	386	13	13.2	.....	44	1†	-18	24	48	2.98	+0.09	0.79	18.5	15	11	2	16	w.	Great Northern Paper Co.
North Bridgton	Cumberland	450	23	19.5	+0.1	52	1	-14	15	49	4.36	+0.96	1.53	27.5	14	9	9	11	n.	C. L. Chadbourn.
Orono	Penobscot	129	47	20.8	+1.6	50	1	-13	21	44	2.61	-1.01	0.60	19.0	8	12	4	13	nw.	Maine State College.
Patten	do	550	14	12.6	.....	49†	1	-20†	15†	53†	4.40	-0.20	0.80	16.0	5	13†	0†	12†	ne.	Bangor & Aroostook RR.
Portland	Cumberland	99	45	20.6	-3.2	53	1	-5	21	33	4.30	-0.65	1.08	20.2	15	8	6	15	n.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	7	9.8	.....	46	1	-28	22	45	2.35	+0.48	0.80	18.5	8	15	3	11	n.	E. S. Libby.
Rumford	Oxford	505	23	17.8	-0.4	44	1	-12	21	31	4.11	+0.94	2.76	16.2	13	13	9	7	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	12	10.8	.....	42	1†	-33	12	50	2.20	-0.20	0.65	14.6	8	6	8	15	se.	Rev. J. M. Thomas.
Winslow	Kennebec	90	21	19.4	+0.7	48	1	-16	15	43	2.83	+0.39	1.51	19.5	9	12	3	14	w.	Hollingsworth & Whitney.
New Hampshire.																				
Alstead Center	Cheshire	1,120	12	17.6	-2.2	49	1	-11	14†	38	3.63	+0.83	1.23	41.0	13	15	2	12	nw.	Frank Dewing.
Bethlehem	Grafton	1,470	24	14.4	-3.0	53	1	-19	14	40	3.07	+0.71	0.94	23.0	10	10	5	14	w.	Benjamin Tucker.
Concord	Merrimac	350	56	20.0	-3.6	55	1	-15	16	44	4.18	+0.90	1.65	21.3	13	9	10	10	w.	U. S. Weather Bureau.
Durham	Stafford	88	21	20.7	-4.0	50	1†	-13	15	40	2.36	-0.73	0.65	21.0	8	9	8	12	nw.	N. H. Agr. College.
Franklin	Merrimac	440	17	19.8	+0.8	49	1	-15	15	48	4.07	+1.26	1.37	21.5	14	11	8	10	nw.	Dr. C. P. Webster.
Glencoff	Grafton	1,650	3	14.0	.....	48	1†	-17	14†	38	3.70	+0.80	0.73	30.0	12	9	5	15	nw.	State Sanatorium.
Grafton	do	863	30	17.3	-0.9	48	1	-20	15	48	4.27	+1.21	1.80	22.0	10	14	4	11	nw.	P. R. Kimball.
Hanover	do	603	82	18.5	-0.6	47	1	-16	15	48	3.35	+0.95	1.20	21.9	16	6	10	13	nw.	Dartmouth College.
Keene	Cheshire	506	31	19.2	-3.4	47	1	-19	15	46	3.84	+1.15	1.37	23.4	12	10	10	9	nw.	Samuel Wadsworth.
Nashua	Hillsboro	125	31	22.2	-1.8	54	1	-16	15	44	3.32	-0.39	0.88	21.5	10	7	8	11	nw.	C. B. Stevens.
Newton	Rockingham	126	28	20.3	-4.1	52	1	-14	15	43	4.22	+1.02	1.86	22.5	11	8	9	12	ne.	W. G. Gale.
Plymouth	Grafton	500	28	18.6	+0.7	46	1	-17	15	45	3.60	+0.69	1.27	18.5	12	13	1	15	w.	Mrs. Hattie G. Trow.
Vermont.																				
Bloomfield	Essex	.....	9	15.4	.....	50	1	-24	14	44	2.11	+0.29	0.88	18.2	14	9	2	18	s.	Lyman Falls Power Co.
Burlington	Chittenden	404	9	14.6	-3.3	47	1	-15	14	26	2.32	+0.95	0.85	17.1	18	4	12	13	s.	U. S. Weather Bureau.
Cavendish	Windsor	910	13	16.8	.....	42	1	-24	13	41	2.46	+0.26	0.64	19.5	10	8	7	14	.....	Colonial Power Co.
Chelsea	Orange	840	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. F. Dewey.
Cornwall	Addison	517	23	17.3	-1.9	42	25	-14	14	35	2.48	+0.38	0.80	26.0	14	6	9	14	n.	C. H. Lane.
Enosburg Falls	Franklin	601	25	14.0	-3.0	53	1	-34	14	47	2.09	-0.63	0.51	31.0	15	9	9	11	nw.	J. W. Pomeroy.
Hyde Park	Lamoille	576	4	15.2	.....	54	1	-20	15	44	2.09	.....	0.61	27.0	14	6	8	15	w.	A. V. Wiswell.
Northfield	Washington	876	30	14.7	-2.5	52	1	-24	14	40	2.71	+0.45	1.23	19.7	18	4	5	20	n.	U. S. Weather Bureau.
Somerset	Windham	2,096	5	14.0	.....	37	25†	-17	14	37	5.18	.....	2.10	29.8	22	6	4	19	nw.	Power Construction Co.
St. Johnsbury	Caledonia	711	23	18.3	+0.8	47	1	-21	14	42	2.59	-0.49	0.46	23.1	17	7	11	11	n.	Fairbanks Museum.
Vernon	Windham	310	1	17.3	-4.9	44	1	-16	15	42	3.29	+0.30	2.10	25.5	9	9	3	17	nw.	Conn. River Power Co.
Wells	Rutland	750	25	16.1	-2.8	48	1	-16	14	34	3.20	+0.54	1.58	19.5	9	8	5	16	sw.	E. R. Pember.
Woodstock	Windsor	700	24	20.8	+3.4	57	1	-16	15	41	3.14	+0.40	1.87	15.5	10	8	5	16	.....	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	27	20.4	-4.5	48	1	-16	15	40	5.27	+1.85	1.14	16.8	14	10	7	12	nw.	Mass. Agr. College.
Blue Hill	Norfolk	640	32	21.5	+4.1	53	1	-5	21	32	5.28	+1.48	1.40	33.4	16	8	6	15	w.	Blue Hill Observatory.
Boston	Suffolk	124	46	25.5	-2.5	57	1	0	21	31	5.18	+1.74	2.02	30.3	13	9	8	12	w.	U. S. Weather Bureau.
Chestnut Hill	do	124	36	24.4	-2.9	55	1	-8	15	39	5.65	+1.43	1.32	22.5	13	18	0	11	.....	Met. Water Board.
Clinton	Worcester	370	20	20.4	.....	44	1†	-19	14	38	6.37	+1.35	.....	26.8	14	.....	.....	.....	.....	Do.
Concord	Middlesex	139	26	21.2	-2.4	54	1	-20	15	48	5.16	+1.92	1.39	25.5	12	8	6	15	sw.	Fred A. Tower.
Fall River	Bristol	200	50	25.7	-2.9	52	1	1	21	21	5.14	-0.95	1.90	21.8	15	5	12	12	nw.	C. V. S. Remington.
Fitchburg	Worcester	550	33	21.8	-2.3	56	1	-11	15	41	4.44	-1.16	1.14	24.5	12	12	4	13	w.	Dr. A. P. Mason.
Framingham	Middlesex	160	36	22.6	-4.1	55	1	-19	15	44	5.93	+1.96	.....	26.0	13	.....	.....	.....	.....	Met. Water Board.
Lawrence	Essex	51	32	21.6	-3.0	53	1	-16	15	42	5.45	+2.25	2.75	23.5	13	8	12	9	w.	Essex Company.
Lowell	Middlesex	100	31	23.4	-1.7	51	1	-15	15	43	6.10	+1.74	.....	.....	13	.....	.....	.....	.....	Props. Locks & Canals.
Nantucket	Nantucket	47	30	29.8	-2.8	53	25	6	21	30	4.04	+0.93	0.97	13.2	14	6	8	15	w.	U. S. Weather Bureau.
New Bedford	Bristol	88	104	26.5	-2.4	53	1	1	21	27	4.21	+0.37	1.33	17.5	12	11	4	14	nw.	City Engineer.
Plymouth	Plymouth	50	31	25.5	.....	52	1†	-1	21	29	4.97	+0.93	1.90	22.0	8	10	5	14	w.	Miss L. B. Knapp.
Provincetown	Barnstable	40	29	28.1	-1.1	47	1	4	21	27	2.91	-0.62	0.60	22.0	12	12	4	13	ne.	Gideon Bowley.
Rockport	Essex	25	14	25.8	.....	52	7	0	21	34	2.77	.....	0.84	29.0	12	9	5	15	nw.	U. S. C. G. Station.
Rutland	Worcester	1,160	14	17.8	.....	45	1	-8	20	31	6.38	.....	2.78	27.3	14	11	5	13	nw.	State Sanatorium.
Springfield	Hampden	199	6	24.2	-1.8	53	1	-10	15	39	4.99	+1.43	1.26	27.7	13	11	8	10	nw.	U. S. Army.
Turners Falls	Franklin	200	30	21.4	+1.3	50	1	-16	15	37	5.40	+2.96	1.56	.....	13	11	2	16	.....	Turners Falls Co.
Westboro	Worcester	298	42	27.7	+1.1	56	1	-12	15	42	5.60	+1.81	2.32	30.0	10	.....	.....	.....	.....	Miss E. W. Newcomb.
Williamstown	Berkshire	711	35	19.4	-2.7	44	25	-14	1											



1

Stations.	Watershed.	Day of month.																															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Maine.																																	
Ashland	St. John			.09				T	.11																								
Bar Harbor	Coast		.30	.70				T	.	.10		.07		.30	.30				T	.01							.09	.31		.03	.02		1.28
Cambridge	Kennebec			.10				T	.30		.20			.30	.30				T	.	.30	T			.50		.80	.02					1.32
Cornish	Saco	.02	.25	.20			T	.	.25		.40			.15	.30				T	.33				.10		.15							2.42
Danforth	Penobscot			.40				T	.10	.12									T	.30	.05			.25	.20	.74	.47	.25					2.44
Eastport ***	Coast		.12	.54			(3)	.17	T		.14	.11		.04	.20				T	.27	.04	.38	.07		.12		.25	.09					3.13
Eustis	Kennebec	.01	T	.10	.01	T	.	.21	T	.01	T	.							T	.06	T	.20	T		.15	T	.22	.13	.25	T	.	2.05	
Fairfield	do		.07	.09										.15										.10		.42	.55						2.88
Farmington	do		.04	.08	.13																			.10		.22	.13						1.77
Gardiner	do		.04	.13	.15			.47		.07				.27					T	.03	.10			.60	T	.53	.55	.12					4.22
Greenville **	do			.35	T	.	.08	.50		.02	T	.		.45										.37		.73	.20	.11					3.84
Houlton	St. John												.05	.17					.15	.22	.28			.20	T	.32	.38	.02	T	.		3.24	
Howe Brook	Penobscot			.18				.08		.02			.10								.120						.80	.10					3.20
Lewiston	Androscoggin		.16	.29			.07	.08		.02			.05						.02		.60						.62	.01					1.06
Madison	Kennebec		.27	.12				.27		.08			.11	.27					T	.16	.16			.43		.95	.70	.66					1.64
Millinocket	Penobscot		.17	.19			.10	.20	.07	.03	.04		.19	.09						.08	.28			.37	.26	.125	.70						3.91
North Bridgton	Saco	.02	.12	.18				.42		.07			.06	.24					T	.15	.25			.02	.17	T	.79	.36	T	.			2.68
Oquossoc	Androscoggin							.30					.20											.46		.75	.53	.10					1.16
Orono	Penobscot			.50				T			.10	T		.20					T	.					.40	.20	.11	.60		T	.		2.60
Patten	do			.40				.30						.20							.50												2.61
Portland ***	Coast	.01	.32	.33			.04	.01	.07		.31		.14	.92					T	.	.10	.80											2.40
Presque Isle	St. John			.35	T	.	.04	.01	.07		.31		.14	.92					T	.	.10	.80			.68	T	.91	.74	.15				4.30
Rumford	Androscoggin	T	.03	.17				.40	T	.	.10	T	.	.14	.92						.19	.12					.50						2.85
Van Buren	St. John			.10	T	.	.02	.04	.21		.04		.09	.14						.13	.07			.41	T	.144	.162	T	.	.10			1.11
Winslow	Kennebec		*	.26				.15		.03				.26						.10	T	.60			.34		*	1.51		.24	.25		2.20
New Hampshire.																																	
Alstead Center	Connecticut	.24	.22	.23			T	.10		.10		T	.26	.31					.06	.17	T	.		.11		.50	1.23	.01					3.63
Bethlehem	do		.20					.05		.10	.05	T	.	.40					T	.	.10			.80	*	.23	.94	.20					3.07
Brookline	Merrimack		.60	.60			T	.	.30	T	.	.40	.30	.80					.10		.20			.10	.80	1.00	.10					5.30	
Concord ***	do		.21	.26			T	.11	T	.	.24	T	.01	.30	.29				.01	.10		T		.09	.02	1.41	1.13	T					1.18
Durham	do		.36	.18									.12	.65									.14	.05	.30	.55							2.36
Franklin	do	.05	.23	.24			.03	.13		.20		.03	.24	.33					T	.20	T	.		.14		.85	1.37	.03					4.07
Glencliff	do		*	.30		.02	T	.12		.65		*	.39							.15			.56		1.09	.40	.02						3.70
Grafton	do		.21	.17			T	.30		.21	T	.	.27	.31						.30			.20		.50	1.80							4.27
Hanover	Connecticut	.02	.10	.15			.06	.04	.01	.17	T	.02	.21	.25					T	.02	.20			.26		.58	1.20	.05					3.34
Keene	do	.14	.29	.26			.02			.21	T	.	.25	.37						.01	.20			.10		.62	1.37						3.84
Nasua	Merrimack		.12	.53			T	.	.14		T	.	.41	.59						.12	.14			.06	T	.88	.04						3.32
Newton	do		.40	.24				.09	.14		T	.	.20	.38						.29			.03	T	.18	.50							4.22
Plymouth	do		.10	.19			.03	.20		.17		T	.10	.18					T	.	.15	T		.40		.72	1.27	.00	T				3.60
Vermont.																																	
Bloomfield	Connecticut	.13		.07	T	.	.02	.33	.01	.01	.01		.23						.07		.21			.20		.31	.38	.10	T			2.11	
Burlington ***	Champlain		.02	.06		.01	.04	.10	.01	.05	.03	T	.12	.10					.02		.14	.01	.01		.09		.61	.81	.06				2.32
Avondale	Connecticut		.34	.03				.24		.10	T	T	.36	T					T	.	.13			.31	.14	.64		.17		T			2.46
Chelsea	do																																
Cornwall	Champlain		.02	.06			.05		.05		.05	.16							.06	.05	T	.05		.20		.60	.80	.20					2.48
Enosburg Falls	do		.08		.04		T	.09	.18		.05	.07		.05	.21		T	.03	T	.05		.25	.03	.12		.31	.51	.12	.02				2.09
Lyde Park	do		.08		.05			.06	.19		.05	.06		.08	.22				.01		.20	T	.04	.15		.30	.61	.03	T	.			2.09
Northfield ***	Champlain	.03	.02	.03		.01	.06	.07	.02	.03	.02	.01	.15	.11					.01		.06	T	.20	.15	.40		.73	.94	.01	T	.		2.71
Ormeset	Connecticut	.28	*	.57	.03	*	.13	.13	.07	.18	*	.14	.56	.08					.03	.35			.40		.09	.25	.10	.11	.06	.02			5.18
T. Johnsbury	do		.04	.01	.08		T	.11	.28	.03	.10	.04	T	.03	.39				T	.01	.15	.01		.28		.41	.46	.23					2.59
Upton	do			.31					.19			.10		.27	.08				.03		.10						.21						3.20
Vells	Champlain	.32	.11	.08			T	.					.18	.45					.08					.14		.19	1.58	T	.				3.20
Woodstock	Connecticut	.03	.22				.12			.14			.04	.40						.18				.21		.19	1.87						3.14
Massachusetts.																																	
Ashland	Connecticut	.04	.12	.20			T	.	.12	.06		.48	.79	.83					.08	T	.19			.21		.27	1.14	.74	T				5.27
Bakers Bridge	Merrimack		*	1.30			.04			.21		*	*	1.21					.10		.19			.07		.27	1.14	.74	T				5.60
Bedford	do		.67					.12		.12		*	*	.74					.09		.09			.07		T	1.28	1.22					4.21
Blue Hill	Coast	.01	.51	.55			T	.05		.18		.46	.81						.08	.26			.06	T	.10	1.04	1.15						5.15
Boston ***	do		.47	.66		.01	T	.02		.18		.04	.67	.53	.03				T	.10	.15			.09	.02	1.40	.92						5.37
Brookton	Coast	T	.59	.85			.09	T	.03	.11		.20	.36	.74					.08	.05		T	.04	.02	1.09	.73		T	.				5.18
Bhestnut Hill	do		.09	.15			.03		.19			.33	*	.90					.05	.04	.14	T		.10	.04	1.06	.73						5.25
Clinton	Merrimack			.126			T	.12		.18		*	*	1.66					*	.13	.24			.03	.18	1.32	.19						5.65
Concord	do		.51	.52					.18		.19		.01	.42	.69	T			.06	.27	T	.	.05	*	*	*	2.73						6.37
Full River	Coast	.02	1.00	.45		.02		.20		.16	.20	.56							.01	.12			.02	.01	1.39	1.07							5.16
Hitchburg	Merrimack		.54	.35			T	.07		.13	.03	.28	.49						.03	.24			.03	.10	1.90	.30							5.14
Marblehead	do		*	1.20				.04		.20		.32	*	1.26	*				.10		.22			.04	T	1.10	1.14						4.44
Malden	Coast	T	.30	.40			.07	.08		T	.21	.45	T						.05	.02	.25			.07	*	*	2.52						5.93
Methuen	Merrimack		.78	.99			T	.	.14		.																						



## Daily Temperatures for February, 1916.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean.	
Maine.																																	
Bar Harbor	Maximum	44	38	33	28	35	44	42	38	35	32	30	22	16	10	25	26	28	38	36	26	10	22	35	30	34	38	42	35	20	.....	30.8	
	Minimum	30	28	18	12	18	20	24	20	7	0	12	10	0	-12	-19	6	12	14	2	-2	-10	0	10	8	24	29	16	8	0	.....	9.8	
Cornish	Maximum	59	31	35	34	37	48	51	25	24	42	28	18	19	20	30	38	41	37	34	18	18	39	30	37	38	42	35	24	36	.....	33.4	
	Minimum	36	21	12	0	9	16	19	6	10	6	-7	10	8	-8	-15	-9	22	29	4	-5	-7	-2	21	2	22	33	15	2	-1	.....	8.6	
Eastport	Maximum	49	39	22	21	28	37	39	20	24	27	17	15	9	7	21	29	33	35	36	8	-4	-12	1	19	14	27	36	18	7	5	.....	26.1
	Minimum	39	20	13	12	18	28	20	14	6	5	14	1	4	6	21	26	30	29	6	-4	-12	1	19	14	27	36	18	7	5	.....	12.5	
Greenville	Maximum	44	33	16	18	22	34	36	14	18	20	12	8	4	6	-13	-15	-2	0	23	3	-15	-22	-12	14	-13	18	32	10	-3	.....	21.6	
	Minimum	32	11	10	4	11	17	14	-14	-4	6	-11	-8	4	10	23	29	31	31	31	6	0	24	18	30	26	44	42	18	17	.....	2.2	
Millinocket	Maximum	44	32	21	20	22	32	36	24	20	24	16	8	4	10	23	29	31	31	31	6	0	24	18	30	26	44	42	18	17	.....	23.7	
	Minimum	26	20	13	-6	2	15	23	-1	-1	7	-9	-16	14	37	23	31	38	33	23	31	21	23	28	35	45	43	32	21	.....	2.8		
Orono	Maximum	50	48	32	23	20	37	42	22	26	28	29	18	14	37	23	31	38	33	23	31	21	23	28	35	45	43	32	21	.....	31.2		
	Minimum	38	25	5	6	13	21	31	4	6	11	-2	17	12	11	24	30	36	38	31	12	11	37	30	27	39	41	28	17	.....	10.5		
Portland	Maximum	53	36	27	27	31	41	43	19	20	31	22	17	12	11	24	30	36	38	31	12	11	37	30	27	39	41	28	17	.....	28.3		
	Minimum	36	19	14	10	15	25	19	10	13	14	17	19	0	5	15	27	29	35	32	12	23	-4	20	20	28	42	40	28	13	.....	13.0	
Presque Isle	Maximum	46	38	18	18	14	24	26	5	11	17	19	0	8	-20	-13	-13	15	29	11	-12	-10	-28	-10	-25	6	27	28	3	5	.....	20.6	
	Minimum	11	12	10	-2	-2	8	18	-3	-5	5	-19	-25	18	11	26	33	37	34	32	9	5	30	27	36	40	26	8	19	.....	25.6		
Rumford	Maximum	44	32	26	23	28	35	40	15	22	25	20	16	18	11	26	33	37	34	32	9	4	-12	-6	20	12	23	30	9	0	.....	10.1	
	Minimum	36	21	16	13	22	16	19	2	6	12	0	5	6	5	18	27	31	30	32	29	10	20	25	26	25	42	34	20	20	.....	22.9	
Van Buren	Maximum	42	37	15	18	15	20	32	29	15	20	15	5	6	5	18	27	31	30	32	29	10	20	25	26	25	42	34	20	20	.....	-1.2	
	Minimum	32	10	6	-7	-7	0	20	-8	-8	2	-20	-33	-10	25	-19	-23	14	16	22	5	-14	-13	-8	-22	9	22	28	5	-9	.....	.....	
New Hampshire.																																	
Alstead Center	Maximum	49	35	21	18	27	36	36	14	25	24	21	15	14	9	15	29	34	34	34	10	10	35	31	27	37	40	23	14	15	.....	25.2	
	Minimum	35	16	16	9	12	24	11	4	11	17	2	7	5	-2	-21	28	31	34	33	-5	-3	24	28	35	39	44	26	5	12	.....	10.1	
Bethlehem	Maximum	53	34	28	24	28	35	37	13	22	20	12	7	5	-2	-13	5	20	22	-7	-13	-16	-11	20	7	21	24	5	-6	-11	.....	23.5	
	Minimum	38	22	17	6	13	18	13	-5	-1	10	-11	3	2	-19	-13	5	20	22	-7	-13	-16	-11	20	7	21	24	5	-6	-11	.....	5.3	
Concord	Maximum	55	33	28	25	32	41	41	18	24	31	21	17	12	13	-27	33	39	36	33	15	7	41	32	29	43	43	25	18	24	.....	29.1	
	Minimum	33	21	16	9	11	17	18	9	14	10	5	10	4	-7	-15	-3	25	31	2	-1	-6	-3	25	18	27	25	8	3	6	.....	10.8	
Franklin	Maximum	49	38	28	26	33	44	39	19	25	32	25	16	12	17	-15	-2	26	27	4	-6	-11	-6	-25	14	37	41	30	13	1	.....	29.8	
	Minimum	36	20	18	9	8	15	19	7	11	9	-4	10	10	-8	-15	-2	26	27	4	-6	-11	-6	-25	14	37	41	30	13	1	.....	9.9	
Hanover	Maximum	47	36	26	24	31	38	38	18	28	18	19	16	18	12	-24	23	35	39	34	12	9	40	30	34	41	42	26	15	22	.....	28.1	
	Minimum	36	18	18	3	12	24	15	5	9	18	-5	2	6	-14	-16	0	24	29	31	19	-18	36	36	29	40	45	31	24	24	.....	8.9	
Nashua	Maximum	54	42	31	29	34	44	36	23	26	36	26	21	20	21	-28	32	36	34	33	19	-18	36	36	29	40	45	31	24	24	.....	31.3	
	Minimum	40	22	19	8	15	25	20	12	14	-14	4	11	11	-5	-16	-2	26	30	33	19	-18	36	36	29	40	45	31	24	24	.....	13.0	
Plymouth	Maximum	45	39	24	22	30	36	36	19	22	27	23	32	19	11	23	36	36	35	32	8	8	34	30	39	36	41	33	14	17	.....	27.6	
	Minimum	33	19	19	4	10	14	19	5	4	11	-2	11	7	-8	-17	-0	23	23	2	-3	-9	-10	24	20	25	32	14	0	4	.....	9.6	
Vermont.																																	
Burlington	Maximum	47	23	21	26	28	35	34	11	24	23	11	11	7	-2	15	27	34	36	14	6	5	25	24	31	37	35	18	11	16	.....	7.2	
	Minimum	23	18	14	16	19	28	10	1	8	-8	-8	0	-6	-15	-9	10	26	14	0	-4	-14	5	9	5	30	18	1	-1	3	.....	24.1	
Enosburg Falls	Maximum	53	32	19	25	29	28	28	19	29	22	16	15	11	3	-25	29	32	33	33	6	-2	24	24	35	42	43	22	6	-16	.....	3.9	
	Minimum	32	12	12	12	19	24	19	-4	1	12	-19	-5	-13	-34	-22	2	25	30	-3	-7	-18	-18	14	-2	23	22	6	-2	-5	.....	28.6	
Northfield	Maximum	52	25	24	22	27	35	39	11	22	24	15	14	13	-4	-22	27	34	35	19	3	4	33	27	29	35	36	22	9	17	.....	5.7	
	Minimum	25	17	14	9	16	24	11	0	5	9	-12	5	-4	-24	-18	8	24	19	-3	-13	-14	3	16	11	29	22	0	-3	-4	.....	27.7	
St. Johnsbury	Maximum	47	37	29	27	28	36	41	19	28	26	20	19	18	10	24	30	34	36	34	9	6	23	39	38	45	45	31	14	19	.....	8.3	
	Minimum	36	18	17	13	10	23	19	-2	0	12	-13	1	10	-21	-18	6	23	21	1	-8	-13	12	20	11	21	31	12	-2	-2	.....	24.6	
Wells	Maximum	48	34	24	18	26	35	32	15	28	26	22	12	8	-4	14	26	34	36	32	12	10	30	28	30	40	34	30	12	14	.....	7.6	
	Minimum	34	16	14	8	8	25	15	0	12	12	2	6	4	-16	-12	6	22	23	1	-8	-14	-4	12	4	26	30	6	-3	-4	.....	28.9	
Massachusetts.																																	
Amherst	Maximum	48	32	27	25	30	40	38	26	31	31	22	19	20	13	24	31	41	35	12	18	13	28	32	38	43	39	26	21	29	.....	11.8	
	Minimum	32	20	17	10	12	19	15	13	15	21	10	13	7	-7	-16	-1	25	24	12	-4	-5	-2	22	18	30	45	25	19	25	.....	29.2	
Blue Hill	Maximum	53	38	27	23	31	40	41	19	24	29	23	25	15	15	-22	30	33	36	34	17	15	35	32	40	45	45						







Daily Precipitation for February, 1916—Continued from page 13.

Stations.	Watershed.	Day of month.																															Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
<i>Rhode Island.</i>																																	3.59	
Block Island***	Coast	.42	.32	.12					.02	.29		.02	.10	.08				.01	.01	.15	.41			T.	.08	1.47	.09	T.						6.28
Bristol	do		*	1.48		T.				.20	*	*	*	.98				T.	*	.10	.10	.03		*	*	3.49								5.26
Greene	do			1.15						.17										.13						2.50	.83	.02						5.94
Hope Valley	do	.20		.10	.50	T.			.40		.05	.10	.40	.30						.49	.35				T.	2.57	.48							5.96
Kingston	do	.32	.75	.20		T.			.40		.10	.20	.50						T.	.19	.25		T.		.05	.05	1.97	.49	T.					5.45
Narrag sett Pier***	do	.34	.43	.65		T.	T.			.41	.05	.12	.40	T.						.03	.16	.30	T.	.03	*	*	3.27							6.00
Pawtucket	do	*	*	.64		.02		T.	.19				.23	1.37				.02		.24		T.			.02	.15	.90	.57	T.					4.34
Providence***	do	.02	.45	.19		.02		.01		.17		.12	.21	.33				T.	.01	.14		.03			.02	1.00	.05							3.10
Wallum Lake	do		.20	.60						.05			.30	.50						.10						1.00	.05							
<i>Connecticut.</i>																																		
Bridgeport	Coast	.12	.71	.46		T.				.38		.03	.15	.73					.13	.18		.20		.03	T.	1.72	.15			.05				5.04
Canton	Connecticut		.54	.39		T.		T.		.28		.28	*	.61	.61			T.		.50		.20		T.	T.	2.64	T.	T.						4.74
Colenester	Coast	T.	.40	.60	T.	T.	T.	T.		.30		.20	.30	.60				T.		.50		.20			T.	T.	.2	1.15	T.		.03			5.22
Cream Hill	Housatonic		.40	.35				.12		.15		.06	.50	.40						.10		.15			.14	.03	.95	.58						4.02
Danielson	Coast		.50	.60		T.		T.		.40			1.00					T.		T.		.10		T.		2.00								5.25
East Hartland					.90					.20		.36	.82							.18						3.09								5.55
Falls Village	Housatonic		.70	.30					.20	.20	.38	.48						T.	.20	.04	.04		.03	.35	.92									3.77
Hartford**	Connecticut	T.	.75	.21		T.	.02	.07	T.	.18		.30	.31	.34				.03	T.	.22	.24	.02		.01	.05	3.04	.14	T.						5.72
Hawleyville	Housatonic																																	
Lake Konomoc	Coast			1.10						.65			.69	.15												.65								6.24
New Haven***	do	.07	1.05	.27		T.	.04	.03	.20	.30		.11	.17	.98				.06	.01	.20	T.	.07		T.	.31	.24	.10			.01				6.21
New London	do	.09	1.20	.36			.05			.45			.18	.60					.01	.19				.03		1.96	.85							6.01
N. Grosvenor Dale	do		.53	.63			.02	.03	.20			.36	.72						.02	.26		.01		.06	*	2.00	1.38							6.27
Norwalk	do		.08	1.20			.05	*	.18		.09	*	.80						.14	.11		.09			*	2.36		T.						5.10
Southington	do	T.	.60	.40					.75				.20	.40	T.			T.	T.	T.	T.					2.70	.90							5.45
Storrs	Coast		T.	.95			*	.17			T.	*	.85							.25		.01		.01		2.68	1.05			.01				5.98
Torrington	Housatonic			.80	.35				.08	.21		*	*		.52				.60					*	.04	.43	1.56							4.77
Voluntown	Coast	.08	*	1.07						.20		*	*	*	.80			.02	*	.13	*	.06		*	.04		2.52							5.01
Wallingford	do																																	
Waterbury	Housatonic	T.	.80	.55		T.	.06			.23		.23		.90				.07	.18	T.	.08			.02		2.00	.76	T.						5.88

\* Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations.  
\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.  
† Precipitation indicated in that of following day.

†† Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.

Comparative Data for New England for February.

[illegible]



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11-11-16  
MAY 1 1916

U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

NEW ENGLAND SECTION

MARCH, 1916

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BY  
JOHN W. SMITH  
DISTRICT FORECASTER AND SECTION DIRECTOR

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
APRIL 24, 1916



Departure of the Mean Temperature from the Normal, March, 1916.



Shaded portions show excess (+).  
 Unshaded portions show deficiency (-).  
 Lines show amount of excess or deficiency.



## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist and Section Director.

VOL. XXVIII. BOSTON, MASS., MARCH, 1916.

No. 3.

## GENERAL SUMMARY.

The features of the month were unusually low temperature and heavy snowfall, the average temperature being the lowest and the snowfall the greatest for any March in the section averages, beginning in 1888. During the first three weeks the temperature was below the normal nearly every day, with an exceptionally large number of days with minima of zero or below, particularly in the northern portion of the section. The precipitation, except at a few scattered stations, was below the normal throughout the section. The greater portion was in the form of snow, the heaviest storms, with amounts exceeding 6 inches, occurring on the 7th to 9th, and 13th to 16th, with considerable drifting. The amount of snow on the ground accumulated until the 22d of the month, when there was from 1 to 2 feet in the southern, and from 3 to 5 feet in the northern portion of the section. During the last week the snow melted rapidly so that at the end of the month none remained on the ground, except in extreme north portion.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 15 stations reporting, was 29.89 inches, which was .09 inch below the normal for the month. The highest monthly mean was 29.96 inches, at Amherst, Mass.; the lowest, 29.80 inches, at Eastport, Me. The highest recorded was 30.44 inches, at Amherst, Mass., on the 2d; the lowest, 28.77 inches, at Eastport, Me., on the 14th. The monthly range for the section was 1.67 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 15 stations, was 25.1°, which was 5.6° below the mean for March, 1915, and also the lowest for any March in the record of section averages beginning in 1888. The previous lowest average temperature for the month was 27.7°, in 1906; the highest average temperature for the month since 1888, was 40.8°, in 1903. The average temperature for the several states of the section, was as follows: Maine, 22.6°; New Hampshire, 23.7°; Vermont, 20.9°; Massachusetts, 28.0°; Rhode Island, 28.9°; Connecticut, 27.8°. The average temperature for the section was 5.7° below the normal. The departures from the normal for the several states were as follows: Maine, -4.5°; New Hampshire, -5.6°; Vermont, -6.2°; Massachusetts, -5.5°; Rhode Island, -6.2°; Connecticut, -6.4°. The highest monthly mean was 31.8°, at Westboro, Mass.; the lowest, 16.0°, at Van Buren, Me. The highest recorded was 74°, at Houlton, Me., on the 27th; the lowest, -23°, at Van Buren, Me., on the 13th. The greatest local monthly range was 92°, at Houlton, Me.; the least, 37°, at Nantucket, Mass. The greatest daily range was 55°, at Hyde Park, Vt., on the 26th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 15 stations reporting, was 73 per cent, which was 1 per cent below the normal for the month. The highest monthly average was 87 per cent, at Amherst, Mass.; the lowest, 64 per cent, at Portland, Me.

## PRECIPITATION.

The average for the section, as shown by the records of 86 stations, was 2.83 inches, which was 2.62 inches above the average for March, 1915. During the past 28 years the average March precipitation has been greater in 17 and less in 11 years than in the present year. The greatest average March precipita-

tion during this time was 6.43 inches, in 1899; the least, 0.21 inch, in 1915. The average precipitation for the several states of the section was as follows: Maine, 2.31 inches; New Hampshire, 2.70; Vermont, 2.18; Massachusetts, 3.45; Rhode Island, 2.72; Connecticut, 3.28. The average precipitation for the section was 0.98 inch below the normal for the month. The departures from the normal for the several states were as follows: Maine, -1.46 inches; New Hampshire, -0.69; Vermont, -0.81; Massachusetts, -0.53; Rhode Island, -1.81; Connecticut, -1.04. The greatest monthly amount was 5.22 inches, at Portland, Me.; the least, 0.80 inch, at Bloomfield, Vt. The greatest amount in any 24 hours was 1.90 inches, at Bethlehem, N. H., on the 8-9th. The average snowfall for the section was 30.3 inches, which was 28.6 inches above the average for March, last year, and 18.7 inches above the normal, and the greatest of record for the month in the section averages extending back to 1888. The previous heaviest snowfall for March was 26.3 inches in 1888; the least during this time was 1.6 inches, in 1913. The average snowfall in the several states was as follows: Maine, 24.2 inches; New Hampshire, 35.3; Vermont, 32.3; Massachusetts, 32.1; Rhode Island, 20.2; Connecticut, 33.6. The average number of days with .01 inch or more of precipitation was 11, 1 more than the normal number for the month.

## WIND.

The prevailing direction of the wind was from the northwest, which is the normal direction for the month, as determined from the records of the past 29 years. The average monthly wind movement for the section, 15 stations reporting, was 9,034 miles. The greatest monthly wind movement was 16,776 miles, at Block Island, R. I.; the least, 4,800 miles, at Concord, N. H. The average hourly velocity was 12.1 miles, which was 0.6 mile below the average for March, 1915, and 0.1 mile above the normal for the month. The highest recorded velocity was 67 miles per hour from the northeast, at Nantucket, Mass., on the 4th. This is about the usual maximum velocity for the month.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 16; partly cloudy, 6; cloudy, 9, which compares with the normal for the month of 12 clear, 8 partly cloudy, and 11 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 59, which was 15 per cent below the average for March, 1915, and 5 per cent above the normal for the month, as determined from the records of the past 24 years. The greatest percentage of possible sunshine in any March since the beginning of the automatic records in 1892, was 74, in 1915; the least, 36, in 1899.

## DATES OF MISCELLANEOUS PHENOMENA.

*Parhelia*.—North Bridgton, Me., 13, 28; Hingham, Mass., 25. *Thunderstorms* (dates and number of observers reporting on each)—Massachusetts: 8th, 2; 15th, 1; 22d, 2. Rhode Island: 8th, 2; Connecticut: 8th, 3; 15th, 5; 16th, 1.

*Halos, Lunar*.—North Bridgton, Me., 9, 12; Woodstock, Vt., 19; Blue Hill, Mass., 13, 14, 18, 20; Boston, Mass., 18, 20; Hingham, Mass., 21; Leominster, Mass., 13, 18, 20; Westboro, Mass., 18; Norwalk, Conn., 16.

*Auroras*.—Eastport, Me., 6, 17, 31; Presque Isle, Van Buren, Me., Grafton, N. H., Burlington, Cavendish, Vt., Hartford, New Haven, Conn., 29; Bethlehem, N. H., 28, 29, 31; Glencliff, N. H., 16, 17; Enosburg Falls, Vt., 4, 30, 31; Blue Hill, Mass., 16; Rockport, Mass., 5, 17, 31.

*Halos, Solar*.—North Bridgton, Me., and Enosburg Falls, Vt., 6; Grafton, N. H., 28; Northfield, Vt., 28, 29; Woodstock, Vt., 4, 6, 18, 20, 27; Blue Hill, Mass., 4, 6, 9, 12, 27; Boston, Mass., 4, 6, 18, 19, 24, 27, 28; Hingham, Mass., 21; Somerset, Mass., 27; New Haven, Conn., 12, 18, 24; Norwalk, Conn., 24.



## Climatological Data for March, 1916.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				No. of days—				Prevailing direction of wind.	Observer.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.			Cloudy.
Maine.																				
Bar Harbor	Hancock	20	30	23.8	-7.4	60	28	-2	1	31	4.35	-1.43	0.90	42.5	11	18	3	10	ne.	William Miller.
Cornish	York	778	61	27.2	-2.1	66	30	-15	18	51	4.10	-0.16	1.20	41.0	8	15	6	10	nw.	T. H. West.
Eastport	Washington	53	44	24.6	-4.3	50	30	-4	18	27	1.64	-2.64	0.39	15.7	11	10	8	13	n.	U. S. Weather Bureau.
Fairfield	Somerset	90	31	24.9	-2.9	65	30	-9	18	45	1.48	-1.78	0.95	18.0	4	20	5	6	.....	E. F. Parker.
Farmington	Franklin	450	19	21.8	-8.4	66	30	-2	21	43	2.23	-2.12	0.62	25.5	9	14	9	8	nw.	State Normal School.
Gardiner	Kennebec	163	24	24.9	-5.4	67	30	-9	12	47	3.25	-0.81	0.70	34.5	10	17	3	11	nw.	Samuel D. Soule.
Greenville	Piscataquis	1,140	12	18.8	.....	63	28	-11	22	39	2.35	-1.41	1.00	23.5	9	.....	.....	.....	U. S. Weather Bureau.	
Houlton	Aroostook	362	14	20.0	.....	74	27	-18	22	48	2.05	-1.43	0.60	19.0	4	20	4	7	w.	Bangor & Aroostook RR.
Lewiston	Androscoggin	185	33	23.6	-5.2	60	30	-10	12	42	2.49	-2.10	0.67	30.4	10	15	8	8	nw.	Union Water Power Co.
Madison	Somerset	257	13	21.8	.....	65	31	-10	21	39	2.05	-2.25	0.87	21.5	7	25	0	6	w.	William Jardine.
Millinocket	Penobscot	386	13	20.7	.....	63	28	-17	22	46	1.64	-1.99	0.70	17.5	9	19	4	8	w.	Great Northern Paper Co.
North Bridgton	Cumberland	450	23	24.4	-4.5	65	26	-11	12	47	2.51	-1.75	1.00	31.0	9	17	5	9	n.	C. L. Chadbourn.
Orono	Penobscot	129	47	25.1	-2.5	69	31	0	12	36	2.45	-1.60	0.70	24.5	8	21	3	7	w.	Maine State College.
Patten	do	550	14	20.3 <sup>a</sup>	.....	70 <sup>a</sup>	30	-20 <sup>a</sup>	12	50 <sup>a</sup>	1.50	-1.12	0.80	15.0	2	13 <sup>a</sup>	3 <sup>a</sup>	11 <sup>a</sup>	ne.	Bangor & Aroostook RR.
Portland	Cumberland	99	45	26.8	-3.2	57	27	1	18	26	5.22	+1.47	1.28	36.3	12	13	7	11	n.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	7	16.6	.....	57	31	-20	22	42	1.10	-1.13	0.60	11.0	3	22	4	4	nw.	E. R. Libby.
Rumford	Oxford	505	23	23.8	-3.7	61	30	-2	18	36	1.88	-1.74	1.11	24.0	10	23	4	4	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	12	16.0	.....	63	27	-23	13 <sup>a</sup>	47	1.80	-0.82	1.30	14.5	3	20	3	8	nw.	Rev. J. M. Thomas.
Winslow	Kennebec	90	21	25.2	-4.7	68	30	-5	21	42	0.94	-2.92	0.27	17.5	5	24	2	5	w.	Hollingsworth & Whitney.
New Hampshire.																				
Alstead Center	Cheshire	1,120	12	23.1	-6.2	59	26	-6	18	31	2.47	-1.02	0.84	44.0	11	19	3	9	nw.	Frank Dewing.
Bethlehem	Grafton	1,470	24	19.8	-6.7	61	30	-14	18	40	3.28	+0.18	1.90	32.5	11	20	4	7	w.	Benjamin Tucker.
Concord	Merrimack	350	56	26.2	-5.3	65	31	-2	12	38	3.01	-0.39	0.79	38.2	10	17	6	8	nw.	U. S. Weather Bureau.
Durham	Stafford	88	21	26.2	-5.3	61	26 <sup>a</sup>	0	12	39	2.20	-1.26	0.54	32.0	6	13	9	9	nw.	N. H. Agr. College.
Franklin	Merrimack	440	17	25.6	-5.5	66	30 <sup>a</sup>	-6	12	42	3.09	-0.52	0.66	42.5	11	18	6	7	nw.	Dr. C. P. Webster.
Glencliff	Grafton	1,650	3	19.2	.....	60	31	-8	18	34	2.01	-1.35	0.80	28.9	10	17	6	8	nw.	State Sanatorium.
Grafton	do	863	30	20.6	-6.9	64	30	-16	12	46	2.85	+0.24	0.80	30.0	8	22	0	9	nw.	P. R. Kimball.
Hanover	do	603	82	23.2	-4.2	65	30	-12	12 <sup>a</sup>	49	3.01	+0.40	0.96	37.9	13	17	5	9	nw.	Dartmouth College.
Keene	Cheshire	506	31	24.0	-6.6	63	22 <sup>a</sup>	-15	17	45	2.78	-0.84	0.73	33.2	13	18	6	7	nw.	Samuel Wadsworth.
Nashua	Hillsboro	125	31	28.0	-4.2	62	31	4	12 <sup>a</sup>	36	3.21	-0.84	0.71	31.0	13	11	11	9	ne.	C. B. Stevens.
Newton	Rockingham	126	28	25.2	-6.6	57	26	-2	12	36	2.57	-1.24	0.71	36.0	7	13	12	6	ne.	W. C. Gale.
Plymouth	Grafton	500	28	23.0	-3.9	59	30 <sup>a</sup>	-7	12	42	1.97	-1.67	0.44	37.7	10	20	3	8	w.	Mrs. Hattie G. Trow.
Vermont.																				
Bloomfield	Essex	.....	9	19.0	.....	61	27	-20	18	48	0.80	-1.92	0.35	20.0	7	20	3	8	s.	Lyman Falls Power Co.
Burlington	Chittenden	404	9	20.7	-6.7	57	31	-5	18	32	1.31	-0.52	0.74	24.1	11	12	9	10	n.	U. S. Weather Bureau.
Cavendish	Windsor	910	13	21.6	.....	63	30	-16	11	51	4.32	+1.57	1.70	46.0	8	15	8	8	n.	Colonial Power Co.
Chelsea	Orange	840	21	20.6	-4.4	62	28	-19	12	54	1.53	-1.57	0.40	31.0	7	19	2	10	n.	W. F. Dewey.
Cornwall	Addison	517	23	22.3	-6.8	59	28	-6	18	35	2.15	+0.07	1.10	44.0	7	16	7	8	n.	C. H. Lane.
Enosburg Falls	Franklin	601	25	18.3	-9.1	53	30 <sup>a</sup>	-18	12	48	0.97	-2.17	0.31	17.5	8	20	6	5	nw.	J. W. Pomeroy.
Hyde Park	Lamoille	576	4	20.5	.....	65	27 <sup>a</sup>	-18	12	55	1.36	-0.45	0.31	5.0	9	16	8	7	nw.	A. V. Wiswell.
Northfield	Washington	876	30	19.0	-7.2	60	28	-13	12	50	1.31	-1.48	0.58	22.0	9	13	7	11	n.	U. S. Weather Bureau.
Somerset	Windham	2,096	5	19.5	.....	58	26 <sup>a</sup>	-7	17	37	4.71	-1.38	0.40	54.0	15	16	5	10	nw.	Power Construction Co.
St. Johnsbury	Caledonia	711	23	22.6	-3.9	66	28	-17	12	50	1.52	-1.27	0.46	19.4	10	15	8	8	n.	Fairbanks Museum.
Vernon	Windham	310	1	24.6	-5.9	63	31	-14	17	45	1.74	-1.81	0.50	30.5	10	17	8	6	nw.	Conn. River Power Co.
Wells	Rutland	750	25	20.2	-7.3	55	28	-15	18	28	3.46	+0.16	0.90	35.5	8	13	11	7	sw.	E. R. Pember.
Woodstock	Windsor	700	24	23.1	-4.6	60	29 <sup>a</sup>	-13	12	47	3.15	+0.04	1.10	44.5	8	14	9	8	.....	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	27	26.8	-5.9	66	31	0	11	43	3.97	+0.10	1.08	22.0	12	19	4	8	nw.	Mass. Agr. College.
Blue Hill	Norfolk	640	32	25.5	-6.8	50	31	1	18	24	4.16	-0.24	0.72	42.2	19	11	9	11	w.	Blue Hill Observatory.
Boston	Suffolk	124	46	30.6	-4.4	55	26	7	18	25	3.20	-0.88	0.68	33.0	15	16	4	11	w.	U. S. Weather Bureau.
Chestnut Hill	do	124	36	27.8	-6.5	58	31	2	18	33	4.18	-0.16	0.77	30.0	14	22	0	9	.....	Met. Water Board.
Clinton	Worcester	370	20	26.8	.....	62	31	-5	11	39	4.36	+0.75	.....	33.4	11	.....	.....	.....	Do.	
Concord	Middlesex	139	26	26.5	-7.7	62	31	0	12	39	3.28	-0.15	0.78	34.5	12	14	8	9	nw.	Fred A. Tower.
Fall River	Bristol	200	50	30.0	-6.0	58	31	5	18	27	3.77	-0.98	0.66	32.1	18	8	15	8	n.	C. V. S. Remington.
Fitchburg	Worcester	550	33	27.2	-4.6	65	31	0	18	34	2.53	-1.32	0.46	32.0	12	14	8	9	nw.	Dr. A. P. Mason.
Framingham	Middlesex	160	36	26.6	-7.6	59	31	0	18	32	3.95	-0.48	.....	29.2	14	.....	.....	.....	Met. Water Board.	
Lawrence	Essex	51	32	26.8	-5.8	58	31	-4	12	39	3.41	-0.55	0.92	38.5	15	14	12	5	w.	Essex Company.
Lowell	Middlesex	100	31	27.5	-5.0	61	31	1	18	37	3.68	-0.48	0.91	.....	9	.....	.....	.....	Props. Locks & Canals.	
Nantucket	Nantucket	47	30	30.4	-6.4	46	31	9	18	16	3.60	-0.38	1.19	22.9	16	12	7	12	nw.	U. S. Weather Bureau.
New Bedford	Bristol	88	104	31.3	-3.6	59	31	6	18	24	2.89	-1.44	0.68	28.8	8	18	2	11	nw.	City Engineer.
Plymouth	Plymouth	50	31	27.5	.....	48	31	2	18	24	4.59	-0.08	1.00	38.0	13	15	3	13	w.	Miss L. B. Knapp.
Provincetown	Barnstable	40	29	28.8	-5.8	48	31	8	18	17	2.88	-1.05	0.80	22.5	8	14	6	11	ne.	Gideon Bowley.
Rockport	Essex	25	14	29.0	.....	55	15	6	18	31	2.43	.....	0.43	29.0	13	16	5	10	nw.	U. S. C. G. Station.
Rutland	Worcester	1,160	14	25.0	.....	60	31	-3	17	24	3.32	.....	0.66	33.1	15	19	4	8	sw.	State Sanatorium.
Springfield	Hampden	199	6	30.0	-3.1	66	31	2	18	37	3.22	-0.51	0.62	31.6	13	12	12	7	nw.	U. S. Army.
Turners Falls	Franklin	200	30	26.9	-6.7	63	30	-5	18	42	2.98	-0.36	0.78	.....	11	18	2	11	.....	Turners Falls Co.
Westboro	Worcester	298	42	31.8	-2.2	64	31	2	18	31	2.84	-1.40	0.70	28.0	10	.....	.....	.....	w.	Miss E. W. Newcomb.
William																				



Daily Precipitation for March, 1916.

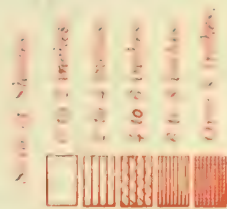
Stations.	Watershed.	Day of month.																															Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Maine.																																		
Ashland	St. John							.17		.44				.03	.02		.03	T															6.69	
Bar Harbor	Coast		.05		.10		.30	.60		.80	.10			.90	.10	.60	.40																1.35	
Cambridge	Kennebec							.22		.80				.30		.80								.40									1.62	
Cornish	Saco		T.					.40	.60	.80	.15			.30	.10	.20	T.																4.10	
Danforth	Penobscot							*	.70	.20	.18			.10	.12	.20	.30						.55										1.60	
Eastport	Coast		T.		.04	T.		.21	.25	.08	.09	T.		.14	.07	.27	.32				T.	T.	T.	.06	.08								1.64	
Eustis	Kennebec		.02	T.			T.	.30	.02	1.02	T.	.04		.06	.04	T.							T.		.02								1.65	
Fairfield	do							.13		.95	.06			.34																			1.45	
Farmington	do		.03					.30	.28	.62			.57	T.	.20	.02																	2.25	
Gardner	do		.05					.23		.61	.29			.70	.02	.50	.40					T.											3.25	
Greenville	do		T.			.02		.40	.30	.70	.10			.43	T.	.15	.20					T.		.05	.35								2.55	
Houlton	St. John							.15	.60					.05		.15																	2.55	
Howe Brook	Penobscot							.20	.20	1.40			.20		.10	.40																	6.65	
Lewiston	Androscooggin		T.					.35	.42	.13	.08			.67	.02	.47	.13																2.90	
Madison	Kennebec						.18	.15	.87					.13	.43	.15							.19	.03									2.19	
Milbrook	Penobscot					.08		.43	.70	.02	.05	.05		.26	T.	.03	.02						.14										2.65	
North Bridgton	Saco		T.					.36	.10	1.00	.01			.21		.35	.38					T.											1.64	
Oquossoc	Androscooggin		T.																				.08	.02							T.		2.51	
Orono	Penobscot							.35	.10	.70	.05			.30	.10		.70																	
Patten	do							.70		.80															.15								2.45	
Portland	Coast		.06	.07		T.	.08	.91	.23	.05	.24			.64	.10	.88	.47																1.50	
Presque Isle	St. John							.30	T.	.60	T.	T.		T.	T.		.20						.49	T.									5.22	
Rumford	Androscooggin		.04					.37	.74	.05	.04			.32		.19	.01					T.											1.10	
Van Buren	St. John							.35	.15	1.30				T.	T.		.01							.11	.01								1.88	
Winslow	Kennebec						.20			.24				.27		.17								.06									6.94	
New Hampshire.																																		
Alstead Center	Connecticut		.07	T.		T.		.45	.42	.09	.03			.13	.02	.81	.06						.23	.13									2.47	
Bethlehem	do		.05	.05				.03	.40	1.50	.20	.10		.20		.45	.20						.10										3.28	
Brookline	Merrimack				T.		.40		.60		.40			.30		1.00			T.	T.		T.											2.47	
Concord	do		T.	.28		T.	.12	.27	.79	T.	.10			.34	T.	.63	.07			T.	T.		T.										3.50	
Durham	do		.10					.40		.34				.40		.54							.38	.03							T.		3.01	
Franklin	do		.09	T.		T.		.58	.18	.55	.10			.39		.66	.18					.03											2.20	
Glencliff	do		.02	.04	T.	.04		.15	.80	.20				.17		.42						.05											3.09	
Grafton	do		.10					.30	.30	.80	T.			.30		.70	.23																2.01	
Hanover	Connecticut		.10	.03		.02		.38	.57	.39	.06			.27	T.	.64	.07					.04											2.85	
Keene	do		.12			.01		.56	.41	.18	.14			.20	T.	.73	.13					.02		.02									3.01	
Nasua	Merrimack		.18					.56	.50		.48			.18	T.	.71	.16																2.78	
Newton	do		.19	T.				.54	.71		.09			.18	T.	.30	T.																3.21	
Plymouth	do			.05		T.		.26	.20	.44	.15			.34		.33	.05					T.											2.57	
Vermont.																																		
Bloomfield	Connecticut		.05	.01				.18		.35	.06			.10			.05																0.80	
Burlington	Champlain		T.	.04			.02	.61	.22	.29	.45	.04		.06		.12	T.																1.31	
Cavendish	Connecticut		.08	T.		T.	.61	T.	1.70	.31			.21	T.	.30	.53					.04		.02	T.									4.32	
Chelsea	do							.26	.40	.25	.08			.16		.22																	1.58	
Cornwall	Champlain		.08					.25		.10	.10			.08		.24																	2.15	
Enosburg Falls	do		.06			.04		.21		.31	.09	.03		.20									.03										0.97	
Hyde Park	do		T.	.04		T.		.27	.32	.45	.24	.03		.17	T.	.02	.10					T.	.04										1.36	
Northfield	Champlain		T.	.02	T.		.08	.19	.32	.26	.03			.08	T.	.19		T.	T.				.14										1.31	
Somerset	Connecticut		.24			.05	.02	.71	.26	1.12	.30	.04		.40	*	.46	.80					.03	.04		.24								4.71	
St. Johnsbury	do		.07	.02		.02		.30		.46	.12	T.	.19	.22		.15	.11					T.											1.52	
Vernon	do		.09				.50	.03	.16	.10	.03		.19		.09	.27				T.	T.		T.										1.74	
Wells	Champlain		T.			.04		.62	.32	.90	.10			.35		.72						T.											3.46	
Woodstock	Connecticut		.14					.75	*	1.10	.05			.22		.54							.41										3.15	
Massachusetts.																																		
Amherst	Connecticut		.08			T.	.76	.08	1.08	.17	.09			.38	.27	.48					.04		.15	.39									3.97	
Ashland	Merrimack		.27	.10	.04			.16	.32		.30			.28		* 1.46				.03		.03	.73							*	.02		4.48	
Bakers Bridge	do		.16					.37	.07	.05	.01			.20		.41	.12					.03	.35										2.68	
Bedford	do		.24					.37	.07	.27	.06	.05		.26	*	.76	.10																2.70	
Blue Hill	Coast			.32	.06	.05	.01	.32	.67	.62	.01	.18		.20	.02	.72	.18				.03	T.	.04	.58	.14						T.	.01	.07	4.16
Boston	do		.64	T.	.32	.06		.76	.57	T.	.14			.23	.06	.59	.01				T.		.41	.05									3.20	
Brockton	Coast		.19	.18	.15	.06	*	.77	.05	.73		.22		.22		.42	.16				.07		.03	.33	.07						T.	.01	.03	3.59
Chestnut Hill	do							.05	.73				.19		.32	.70							.57										4.18	
Clinton	Merrimack		.20	.04	T.		.07	.01	T.	.30		.71	.53		.30		* 1.08				T.	T.	T.	*	.70						T.	.05		4.36
Concord	do		.24	T.	.36	.18	.02	.40	.73	.50	.03	.18		.15	T.	.78	.08				T.	T.	T.	.43	.08								3.28	
Fall River	Coast		.09	T.	.36	.18	.02	.40	.73	.50	.03	.18		.15	T.	.78	.08				T.	T.	T.	.43	.08								3.77	
Fitchburg	Merrimack		.25	.16	.02			.35	.33	.07	.19			.17	.04	.46	.25				T.	.06	.01	.04	.66	.09						.01	.02	2.53
Framingham	do		.38	.06				.75	.68		.27			.25		* .93					.03		.02	.60							*	.04	3.95	
Haverhill	do		.31		.40		.64	T.	.33	.30	.40	.33		.10	.01	.55	.15						.01	.32	.15								3.09	
Hingham	Coast		.09					.15	.70		.12			.20	.30	.65	T.				T.	T.	.52									.04	3.88	
Jefferson	Merrimack		.37	.06	.05		*	.55	*	.54		.47		.76		.52							*	.55									3.99	
Lake Cochituate																																		



## Daily Temperatures for March, 1916.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Maine.																																
Bar Harbor	Maximum	22	20	32	22	23	29	29	28	26	36	30	26	34	32	34	34	20	22	28	26	24	26	24	36	44	48	58	60	58	59	58
	Minimum	-2	2	5	10	11	11	11	16	11	18	12	6	6	26	28	18	4	3	-1	6	8	12	18	18	20	24	28	28	28	28	28
Cornish	Maximum	36	28	36	39	35	34	30	36	38	34	39	41	46	42	31	36	33	36	36	32	44	32	41	49	55	64	65	63	66	65	65
	Minimum	-4	2	4	15	12	0	18	17	20	13	4	-7	20	25	16	15	-6	-15	0	2	-5	7	18	15	25	18	25	25	24	28	28
Eastport	Maximum	19	17	25	22	25	24	25	28	28	37	33	26	28	30	28	21	25	23	23	21	33	26	34	38	37	49	47	50	48	50	49
	Minimum	5	5	14	11	10	11	19	19	22	21	14	9	19	17	19	15	10	4	10	8	6	15	17	15	29	37	37	35	31	37	35
Greenville	Maximum	10	19	22	20	18	22	17	31	21	25	24	24	27	35	21	19	14	16	18	12	25	28	25	32	38	59	61	63	56	60	58
	Minimum	-2	-4	3	5	6	0	5	12	13	9	8	-3	0	16	4	5	1	-3	-7	0	-3	-11	8	6	23	27	28	24	26	29	28
Millinocket	Maximum	16	22	18	22	24	25	20	24	26	28	26	28	27	35	28	21	22	22	25	21	28	29	33	35	41	55	60	13	25	27	25
	Minimum	0	2	2	1	8	5	5	12	16	12	8	4	-5	8	9	9	6	-2	-2	5	-12	-17	16	9	26	30	27	23	25	27	25
Orono	Maximum	22	25	24	30	26	27	27	27	29	33	35	30	32	35	36	25	23	25	36	26	34	34	40	41	57	55	68	64	67	69	68
	Minimum	2	3	7	12	9	7	11	14	17	15	17	0	8	6	14	12	5	1	8	0	1	11	16	11	26	31	30	31	34	34	36
Portland	Maximum	25	22	26	28	25	27	30	27	31	36	30	29	34	32	30	28	22	27	26	22	38	28	34	42	47	57	57	51	54	58	57
	Minimum	11	11	14	17	15	12	20	19	21	19	14	6	27	28	16	12	6	1	9	10	12	19	19	18	32	31	34	34	34	34	36
Presque Isle	Maximum	15	13	20	16	23	22	15	28	22	30	28	24	22	28	23	18	20	18	20	18	25	22	28	35	36	53	57	54	54	55	57
	Minimum	-9	9	-8	-9	-8	0	-7	11	16	9	15	-5	-15	9	-5	8	4	-1	-12	-11	-8	-20	9	23	29	22	19	24	26	31	31
Rumford	Maximum	18	20	26	28	22	26	25	27	27	30	24	29	34	37	22	16	20	23	18	36	28	28	36	46	60	57	56	57	57	57	57
	Minimum	-1	4	4	12	13	8	20	18	20	12	8	0	12	24	16	12	8	-2	5	3	0	13	17	20	32	34	28	26	32	31	31
Van Buren	Maximum	11	17	23	19	24	25	14	25	25	29	28	23	24	31	20	20	19	18	25	22	1	24	32	33	36	62	63	61	57	57	57
	Minimum	-10	-20	-22	-15	-12	0	-14	9	11	-1	12	-4	-23	12	-4	8	6	4	-17	-6	-9	-23	4	10	20	28	90	20	28	20	20
New Hampshire.																																
Alstead Center	Maximum	20	24	20	20	20	22	28	23	25	28	22	28	35	22	28	18	12	13	22	22	34	30	22	35	43	57	53	53	55	58	58
	Minimum	4	6	9	10	7	2	15	18	18	12	3	22	23	11	8	2	-6	8	5	11	15	13	11	22	28	32	35	32	39	37	37
Bethlehem	Maximum	11	19	21	20	15	20	30	33	21	31	25	25	32	32	23	15	9	10	16	15	33	31	22	33	41	57	59	58	57	61	58
	Minimum	-6	-3	-3	6	0	-5	14	20	15	10	10	-5	13	20	8	5	-3	-14	-4	2	10	5	10	18	17	31	31	31	32	33	33
Concord	Maximum	24	24	30	26	25	26	30	27	30	39	28	32	40	38	29	25	20	22	24	23	38	27	32	41	48	65	58	57	56	62	61
	Minimum	1	10	15	17	13	9	18	23	21	18	13	-2	23	24	18	10	3	2	10	6	2	10	18	20	31	27	28	28	28	36	36
Franklin	Maximum	23	26	36	27	26	26	30	27	32	38	29	34	39	40	32	23	20	25	24	40	29	32	40	46	65	60	59	58	66	66	66
	Minimum	3	5	12	15	8	5	18	23	20	14	14	-6	39	40	32	23	20	25	24	40	29	32	40	46	65	60	59	58	66	66	
Hanover	Maximum	22	25	27	25	22	27	31	30	30	38	28	34	38	38	30	21	16	22	29	23	41	33	32	42	46	62	62	61	65	61	61
	Minimum	-7	1	6	10	4	-2	16	24	20	14	10	-12	24	20	14	-12	-6	3	23	6	1	13	7	-0	15	13	24	25	25	31	31
Nashua	Maximum	26	25	30	28	28	26	32	31	30	3	36	38	42	42	34	29	24	26	27	37	36	33	41	48	60	56	52	52	58	60	60
	Minimum	6	12	16	20	16	8	18	26	22	18	12	4	30	26	21	20	8	4	10	10	14	20	20	30	24	26	28	30	40	40	40
Plymouth	Maximum	18	21	26	23	22	24	33	29	28	33	30	30	35	36	31	21	13	15	19	19	86	30	25	36	45	56	56	54	51	59	59
	Minimum	4	5	10	12	6	2	19	22	21	13	15	-7	17	16	11	10	4	-2	6	5	8	2	13	16	24	29	22	24	26	32	32
Vermont.																																
Burlington	Maximum	13	17	22	22	19	18	35	33	26	35	21	27	31	30	16	16	12	12	23	19	34	24	27	38	40	46	50	57	52	48	50
	Minimum	2	3	-1	0	9	-2	15	23	17	14	6	-5	24	16	2	3	2	-5	0	5	12	10	5	15	21	27	29	34	32	32	32
Enosburg Falls	Maximum	14	21	25	21	19	24	40	36	42	35	22	30	30	33	18	16	14	13	22	20	30	24	35	38	52	44	45	46	53	55	55
	Minimum	-7	-8	-13	-13	2	-12	17	30	30	10	6	-18	18	18	0	-2	-11	-10	8	-2	8	3	-8	8	12	8	22	28	27	23	23
Northfield	Maximum	16	20	23	20	18	22	29	29	26	36	21	30	31	34	16	16	11	15	21	19	38	29	24	37	42	58	55	60	56	58	58
	Minimum	-8	-3	-6	-3	4	-4	16	25	18	14	-5	-13	19	16	8	5	-2	-12	-4	-2	-3	7	-2	11	14	8	25	24	26	26	26
St. Johnsbury	Maximum	17	33	28	25	23	26	32	38	30	35	35	33	38	41	32	22	18	21	22	23	37	38	29	40	43	57	62	66	63	64	64
	Minimum	-6	-4	-4	7	3	-6	16	27	19	14	13	-17	13	20	9	6	-16	-12	-2	2	3	14	9	13	13	10	24	26	27	29	29
Wells	Maximum	18	25	20	24	18	25	32	30	25	30	25	25	34	25	26	12	15	12	22	18	32	25	25	38	44	54	55	54	50	55	55
	Minimum	4	3	-1	0	8	-3	12	20	15	14	12	2	22	22	2	1	-5	-15	0	3	8	15	1	6	18	20	30	31	32	30	30
Massachusetts.																																
Amherst	Maximum	28	24	30	26	25	23	32	31	27	31	26	34	39	38	30	24	20	22	29	27	36	38	35	40	55	65	64	58	50	64	64
	Minimum	11	14	18	12	12	6	18	18	19	17	0	4	23	26	15	7	2	10	18	20	32	30	12	16	12	24	29	32	30	32	30
Blue Hill	Maximum	26	25	23	24	25	21	32	30	22	32	29	30	39	37	29	26	21	21	22	21	31	30	30	37	47	49</					







Stations.	Watershed.	Day of month.																																Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
<i>Rhode Island.</i>																																			
Block Island ***	Coast	.17	.18			T	.23		.18		.07			.09	.04	.13	.03			.10		.06	.45								T.	T.		1.73	
Bristol	do	*	.21	.42	.03	*	.51	.27		.05				.16		*	.72			.01		T.	*	.63							T.	T.		3.01	
Gascon	do			.26			.46	.32		.10			.06		.15	T.	.60					.45												2.25	
Hope Valley	do	.30	.02	.40	.05	.30	.20	.10		.10				.15	T.	.20	.40			.10		.10	.60	.05										3.07	
Kingston	do	.22		.35	.05	.30	.67	.28		.15				.26	T.	.60				.05		.02	.70								.08			3.68	
Narragansett Pier***	do	.20	T.	.30	T.	.15	.31	.30		.10				.22	.01	.34	.15			.05	*	.05	.50	T.							.03			2.71	
Pawtucket	do	*	.18	.27	*	*	.80	.27		.11				.12	*	*	.96				*	.01	*	.72							.01			3.45	
Providence***	do	.20	.08	T.	T.	.28	.37	.19		.16				.22	.08	.33	T.			.61		.01	.41	.02						T.	.01			2.46	
Wallum Lake	do	.10					.30	.70		.40						.20						.10	.40											2.20	
<i>Connecticut.</i>																																			
Bridgeport	Coast	.19		.07	.05	.87	.18	.55	.10	.41				.10	T.	.55	.05	T.		.08		.10	.55	T.						.20				4.05	
Canton	Connecticut	.27				.70	T.	.33	.32					.11	T.	.67				.04	.09	.37								T.				2.90	
Colchester	Coast	.30	T.	.30	T.	.10	.40	.30	.60					.10		.50				.20		.10	.50							.01				3.41	
Cream Hill	Housatonic	.30			.05	.30	.52	.60	.12	.30				.05	.01	.55	.20			.06		.12	.35	.05						.18				3.76	
Danielson	Coast	.30					.50	.50		.50						.80						.40		.40				.20							3.60
East Hartland																																			
Falls Village	Housatonic	.17	.02		.02	.55		.60		.21				.06	.71	.15			.06		.08	.04	.17							.10				2.92	
Hartford**	Connecticut	.20	.02		T.	.45	.28	.24	.30					.06	.12	.55	T.		.01	.05	.05	.44													

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \* Precipitation indicated in that of following day.

\*\*\* Regular observations.

\* Precipitation indicated in that of following day.

†† Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konoimoc, New London Water Works, New London, Conn.

Year.	Temperature.			Precipitation.			Weather.			Wind.					
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888....	28.9	63	-23	5.50	.....	12	26.3	10	11	10	.....	n.w.	13.3	72	e.
1889....	35.5	72	-6	2.46	.....	9	5.6	9	x	14	.....	ne.	12.9	72	ne.
1890....	32.5	73	-22	6.28	.....	15	22.8	10	10	13	.....	n.w.	11.4	60	ne.
1891....	31.6	63	-22	4.68	.....	10	12.6	9	x	12	.....	n.w.	13.8	70	ne.
1892....	29.7	61	-16	3.20	.....	9	14.2	11	x	9	.....	n.w.	14.0	77	ne.
1893....	29.7	64	-25	3.33	.....	9	6.1	11	x	12	.....	n.w.	11.8	61	n.w.
1894....	34.3	79	-13	1.49	.....	9	4.6	9	13	9	.....	s.w.	11.0	54	n.w.
1895....	30.2	60	-18	2.66	.....	11	9.7	10	x	13	.....	n.w.	16.3	72	ne.
1896....	27.9	66	-21	6.15	4.36	13	24.0	10	x	13	.....	n.w.	12.6	58	n.w.
1897....	32.4	69	-28	3.63	1.50	11	11.0	9	x	16	.....	n.w.	12.7	78	w.
1898....	38.4	68	-12	2.08	1.33	9	4.7	12	x	11	.....	s.	10.1	72	n.w.
1899....	29.9	65	-19	6.44	3.36	16	24.8	15	9	16	.....	n.w.	13.0	70	s.
1900....	27.8	59	-20	5.17	1.30	x	16.6	15	9	7	.....	n.w.	12.0	55	s.
1901....	31.5	64	-24	5.13	4.65	12	7.4	x	x	15	.....	n.w.	12.0	55	s.
1902....	38.8	69	-6	5.87	2.69	13	13.3	11	x	12	.....	n.w.	12.9	72	ne.



16  
Stack

U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

NEW ENGLAND SECTION

APRIL, 1916

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BY  
JOHN W. SMITH  
METEOROLOGIST

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
MAY 19, 1916



Departure of the Mean Temperature from the Normal, April, 1916.



Shaded portions show excess (+).  
Unshaded portions show deficiency (-).  
Lines show amount of excess or deficiency.



## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

VOL. XXVIII. BOSTON, MASS., APRIL, 1916.

No. 4.

## GENERAL SUMMARY.

The average temperature and precipitation were near the normal for the month. The snowfall, however, was much greater than usual and exceeded that of any previous April in the record of the section beginning in 1888, except in 1907. The heaviest snowfall was on the 9th, when from 4 to 6 inches fell throughout the section, except on the immediate southern coast, and nearly 2 inches in some localities in the interior of the northern portion. Precipitation was frequent during the month and was generally in moderate amounts. The extremes in temperature were less than usual. The amount of sunshine and clear weather was much below the normal, which, with the moderate day temperatures, caused the season to be less advanced than usual at the close of the month.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 14 stations reporting, was 29.91 inches, which was .12 inch below the average for April, 1915, and 0.06 inch below the normal for the month. The highest monthly mean was 29.94 inches, at Northfield, Vt.; the lowest, 29.88 inches, at Nantucket, Mass. The highest recorded was 30.40 inches, at Eastport, Me., on the 4th; the lowest, 29.18 inches, at Nantucket, Mass., on the 14th. The monthly range for the section was 1.22 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 14 stations, was 43.1°, which was 4.9° above the mean for April, 1915. During the past 28 years the average April temperature has been higher in 19 and lower in 9 years than that of the month in the present year. The highest average April temperature during this time was 48.7°, in 1910; the lowest, 40.0°, in 1907. The average temperature for the several states of the section, was as follows: Maine, 42.1°; New Hampshire, 42.2°; Vermont, 41.9°; Massachusetts, 44.1°; Rhode Island, 42.5°; Connecticut, 45.2°. The average temperature for the section was 0.5° below the normal. The departures from the normal for the several states were as follows: Maine, +0.8°; New Hampshire, -0.6°; Vermont, +0.4°; Massachusetts, -1.0°; Rhode Island, -2.5°; Connecticut, -0.5°. The highest monthly mean was 48.2°, at Westboro, Mass.; the lowest, 36.5°, at Wrentham, Vt. The highest recorded was 80°, at Storrs, Conn., on the 30th; the lowest, 12°, at Van Buren, Me., on the 1st. The greatest local monthly range was 60°, at Patten, Me.; the least, 24°, at Block Island, R. I. The greatest daily range was 51°, at Winslow, Me., on the 16th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 14 stations reporting, was 75 per cent, which was 5 per cent above the normal for the month. The highest monthly average was 86 per cent, at Nantucket, Mass., and Block Island, R. I.; the lowest, 69 per cent, at Fall River, Mass., and Hartford, Conn.

## PRECIPITATION.

The average for the section, as shown by the records of 85 stations, was 3.32 inches, which was 1.08 inches above the average for April, 1915. During the past 28 years the average April precipitation has been greater in 9 and less in 19 years than of the present year. The greatest average April precipitation during this time was 6.80 inches, in 1901; the least, 1.02 inches, in 1892. The average precipitation for the several states

of the section, was as follows: Maine, 3.33 inches; New Hampshire, 3.49; Vermont, 2.58; Massachusetts, 4.09; Rhode Island, 3.86; Connecticut, 2.66. The average precipitation for the section was 0.12 inch above the normal for the month. The departures from the normal for the several states, were as follows: Maine, +0.38 inches; New Hampshire, +0.59; Vermont, +0.01; Massachusetts, +0.57; Rhode Island, +0.01; Connecticut, -1.01. The greatest monthly amount was 6.23 inches, at Cornish, Me.; the least, 1.35 inches, at Houlton, Me. The greatest amount in any 24 hours was 1.86 inches, at Cornish, Me., on the 23d-24th. The average snowfall for the section was 8.4 inches, which was 3.2 inches above the average for April, 1915, and 4.9 inches above the normal for the month. It was also the greatest April snowfall of record since 1888, except in 1907, when the average for the month was 13.1 inches. The average snowfall in the several states, was as follows: Maine, 10.4 inches; New Hampshire, 11.2; Vermont, 11.4; Massachusetts, 6.5; Rhode Island, 3.3; Connecticut, 4.8. The average number of days with .01 inch or more of precipitation was 12, 2 more than the normal number for the month.

## WIND.

The prevailing direction of the wind was from the northwest, which is the normal direction for the month, as determined from the records of the past 29 years. The average monthly wind movement for the section, 14 stations reporting, was 8,155 miles. The greatest monthly wind movement was 12,771 miles, at Block Island, R. I.; the least, 4,544 miles, at Concord, N. H. The average hourly velocity was 11.3 miles, which was 0.4 mile greater than the average for April, 1915, and 0.1 mile above the normal average hourly velocity for April. The highest recorded velocity was 53 miles per hour from the northwest, at Blue Hill Observatory, Hyde Park, Mass., on the 4th. This is somewhat below the usual maximum velocity for April.

## SUNSHINE AND CLOUDINESS

The average number of clear days for the section was 10; partly cloudy, 7; cloudy, 13, which compares with the normal for April of 11 clear, 8 partly cloudy, and 11 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 42, which was 9 per cent below the average for April, 1915, and 12 per cent below the normal for the month, as determined from the records of the past 24 years. The greatest percentage of possible sunshine in any April since the beginning of the automatic records in 1893, was 71, in 1899; the least, 36, in 1901.

## DATES OF MISCELLANEOUS PHENOMENA.

*Thunderstorms* (dates and number of observers reporting on each): New Hampshire and Vermont—17th, 1. Massachusetts—20th, 1; 21st, 2. Rhode Island—21st, 4. Connecticut—12th, 1; 20th, 1; 21st, 11; 22d, 1; 23d, 1.

*Halos, Lunar*.—Eastport and North Bridgton, Me., 10, 11; Enosburg Falls, Vt., 13, 26; Northfield, Vt., 11; Boston, Mass., 11, 12; Blue Hill and Nantucket, Mass., 7, 12; Block Island, R. I., 7, 11; Hartford and New Haven, Conn., 7, 12, 16; Norwalk, Conn., 7, 11, 16.

*Auroras*.—Ashland, Me., 29; Millinocket, Me., 27, 28; North Bridgton, Me., 3, 29; Presque Isle, Van Buren, Me., Bethlehem, N. H., St. Johnsbury, Vt., Kingston, R. I., Lake Konomoc, Conn., 28; Hanover, N. H., 25, 26, 27, 28; Plymouth, N. H., 25; Burlington and Northfield, Vt., 28, 29; Enosburg Falls, Vt., 11, 28.

*Halos, Solar*.—Eastport, Me., 6, 8, 12, 24, 25; Alstead Center and Brookline, N. H., Hartford, Conn., 3; Bethlehem, N. H., 8; Northfield, Vt., 1, 8, 13, 16, 20, 25, 27, 30; Woodstock, Vt., 1, 6, 8, 11, 13, 25; Boston, Mass., 1, 3, 6, 8; Blue Hill, Mass., 1, 3, 5, 6, 8, 20; Hingham, Mass., 3, 6, 8, 25; Somerset, Mass., 1, 3, 6, 17; New Haven, Conn., 1, 2, 3, 7, 11, 16, 20, 25; Norwalk, Conn., 3, 6.



## Climatological Data for April, 1916.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.					Precipitation, in inches.					No. of days.					Prevailing direction of wind.	Observer.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.	Cloudy.		
<b>Maine.</b>																				
Bar Harbor \$	Hancock	20	30	38.8	-2.9	62	21	22	4†	30	3.85	+0.68	1.40	6.0	8	10	10	10	e.	William Miller.
Cornish	York	778	61	44.0	+1.2	71	16	24	10	43	6.23	+2.69	1.86	13.0	12	8	9	13	ne.	T. H. West.
Eastport	Washington	53	44	39.8	+1.5	58	16	25	10	27	2.57	-0.37	0.71	6.5	13	5	8	17	ne.	U. S. Weather Bureau.
Fairfield	Somerset	90	31	43.9	+4.9	70	16	23	4	44	1.52	-0.79	0.66	5.0	6	16	4	10	...	E. F. Parker.
Farmington	Franklin	450	19	43.0	+0.6	71	30	20	4	43	4.28	+1.69	0.84	14.0	13	7	10	13	nw.	State Normal School.
Gardiner \$	Kennebec	163	24	43.2	-0.4	67	16†	26	8	40	4.00	+0.61	1.01	9.0	16	13	5	12	e.	Samuel D. Soule.
Greenville	Piscataquis	1,140	12	29.2	...	65	17	17	4	37	2.45	-0.33	0.89	11.0	10	...	...	...	se.	U. S. Weather Bureau.
Houlton	Aroostook	362	14	43.3	...	68	17	24	11	33	1.35	-0.65	0.70	13.0	3	12	8	10	nw.	Bangor & Aroostook R.R.
Lewiston	Androscoggin	185	33	41.9	+0.1	64	16†	27	3†	34	4.76	+1.49	1.48	11.0	14	10	10	10	nw.	Union Water Power Co.
Madison \$	Somerset	257	13	42.0	...	68	17	21	4	37	4.32	+0.40	0.78	10.8	12	16	2	12	w.	William Jardine.
Millinocket	Penobscot	386	13	42.0	...	70	17	16	4	42	2.39	-0.91	0.70	10.0	10	15	3	15	e.	Great Northern Paper Co.
North Bridgton	Cumberland	450	23	42.8	-0.1	71	16	24	4	39	5.04	+1.70	1.64	16.0	15	7	8	15	ne.	C. L. Chadbourn.
Orono \$	Penobscot	129	47	44.1	+3.6	65	17†	24	4	33	3.63	+0.72	0.80	14.0	9	16	7	7	ne.	Maine State College.
Patten	do	550	14	42.4	...	73*	17	13*	4	46*	1.54	-1.15	0.64	9.0	3	15*	2*	8*	nw.	Bangor & Aroostook R.R.
Portland	Cumberland	99	45	41.8	-1.2	59	13	27	10	23	5.56	+2.45	1.53	7.9	14	7	9	14	e.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	7	41.2	...	70	27	18	8†	40	1.75	-1.23	0.80	17.0	4	19	6	5	nw.	E. M. Libby.
Rumford \$	Oxford	505	23	42.1	+0.7	67	30	24	4	35	3.98	+0.89	1.63	12.5	13	17	1	12	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	12	40.4	...	67	24†	12	4	40	1.40	-0.56	0.95	10.5	4	13	8	9	nw.	Rev. J. M. Thomas.
Winslow	Kennebec	90	21	43.4	+2.2	72	17	16	16	51	2.72	-0.04	1.04	2.0	8	12	6	12	n.	Hollingsworth & Whitne
<b>New Hampshire.</b>																				
Alstead Center	Cheshire	1,120	12	42.8	-1.2	69	30	25	10	33	3.13	+0.11	0.72	19.0	16	14	5	11	nw.	Frank Dewing.
Bethlehem	Grafton	1,470	24	40.4	-0.1	66	30	19	3	36	2.39	-0.19	0.50	14.5	10	12	7	11	sw.	Benjamin Tucker.
Concord	Merrimac	350	56	43.0	-0.8	70	30	25	8	37	2.96	+0.17	0.73	7.6	15	9	5	16	nw.	U. S. Weather Bureau.
Durham \$	Stafford	88	21	42.2	-1.8	67	1	26	10	40	5.29	+2.27	1.24	10.0	14	11	5	14	nw.	N. H. Agr. College.
Franklin	Merrimac	440	17	43.4	+0.2	74	30	24	3	42	3.53	+0.33	0.77	10.2	17	9	7	14	nw.	Dr. C. P. Webster.
Glencoff	Grafton	1,650	3	39.4	...	67	30	22	3†	34	3.75	...	1.32	14.5	13	7	6	17	nw.	State Sanatorium.
Grafton	do	863	30	40.7	-0.6	71	30	18	10	41	3.17	+0.44	0.75	16.0	10	14	5	11	se.	P. R. Kimball.
Hanover	do	603	82	42.6	+1.0	73	30	22	3	44	3.06	-0.71	0.58	13.8	18	8	6	16	s.	Dartmouth College.
Kenneb \$	Cheshire	506	31	43.0	-1.1	73	30	21	3	47	3.29	+0.64	0.75	9.8	12	8	7	15	ne.	Samuel Wadsworth.
Nashua \$	Hillsboro	125	31	44.6	-0.9	70	16	28	10†	40	4.38	+1.25	1.35	0.4	10	3	14	13	ne.	C. B. Stevens.
Newton	Rockingham	126	28	41.6	-2.8	69	16	23	8	43	4.69	+1.27	1.43	10.0	10	9	9	12	ne.	W. C. Gale.
Plymouth	Grafton	500	28	42.2	+1.0	71	30	24	4†	39	2.27	-0.48	0.59	9.2	14	11	2	17	e.	Mrs. Hattie G. Trow.
<b>Vermont.</b>																				
Bloomfield	Essex	404	9	40.4	...	69	30	16	3	41	2.56	-0.22	0.85	13.5	13	13	4	13	n.	Lyman Falls Power Co.
Burlington	Chittenden	404	9	43.0	+2.3	67	30	25	3	33	1.85	-0.02	0.50	12.3	12	4	9	17	nw.	U. S. Weather Bureau.
Cavendish	Windsor	910	13	42.2	...	73	30	18	2	42	4.59	+2.42	0.87	17.0	11	6	16	8	...	Colonial Power Co.
Chelsea	Orange	840	21	40.6	+0.7	68	29	18	3	42	2.25	+0.07	0.42	11.0	9	7	6	17	n.	W. F. Dewey.
Cornwall	Addison	517	23	44.6	-0.9	74	30	25	3†	47	1.82	-0.14	0.44	11.0	10	8	10	12	n.	C. H. Lane.
Ensbury Falls	Franklin	601	25	42.3	-0.4	67	16	21	3	41	1.62	-0.89	0.42	5.5	12	12	10	8	nw.	J. W. Pomeroy.
Hyde Park	Lamoille	576	4	43.1*	...	72*	30	17*	7	38*	2.63	...	0.47	14.0	14	5*	7*	17*	nw.	A. V. Wiswell.
Northfield	Washington	876	30	40.8	+0.6	69	30	20	6	41	1.94	-0.15	0.68	11.3	12	4	4	22	s.	U. S. Weather Bureau.
Somerset	Windham	2,096	5	36.5	...	67	30	17	2	37	4.70	-0.57	0.80	14.5	17	6	10	14	nw.	Power Construction Co.
St. Johnsbury	Caledonia	711	23	44.0	+2.2	73	30	21	3	43	1.68	-0.57	0.51	9.7	12	7	8	15	n.	Fairbanks Museum.
Vernon	Windham	310	1	43.4	-2.2	72	30	26	3	40	2.44	-0.68	0.71	...	9	7	11	12	sw.	Conn. River Power Co.
Wells	Rutland	750	25	41.6*	-0.2	65*	30	20*	3	48*	2.25	-0.23	0.60	6.5	10	7	8	15	s.	E. R. Pember.
Woodstock	Windsor	700	24	43.0	+1.2	72	30	18	3	41	3.26	+0.51	1.33	11.0	11	6	7	17	...	John S. Eaton.
<b>Massachusetts.</b>																				
Amherst \$	Hampshire	222	27	44.8	-0.6	74	30	28	3	40	3.69	+0.66	1.29	4.8	13	5	7	18	ne.	Mass. Agr. College.
Blue Hill	Norfolk	640	32	41.4	-3.1	67	16	28	9†	30	5.43	+1.83	1.68	16.2	17	8	5	17	nw.	Blue Hill Observatory.
Boston	Suffolk	124	46	45.6	+0.3	68	1	32	8	24	4.51	+0.96	1.30	4.2	14	9	7	14	nw.	U. S. Weather Bureau.
Chestnut Hill \$	do	124	36	45.6	-1.0	71	17	29	4†	37	4.74	+0.92	0.86	2.0	17	17	0	13	...	Met. Water Board.
Clinton \$	Worcester	370	20	43.8	...	69	30	27	7	35	3.87	+0.95	0.86	9.2	15	...	...	...	...	Do.
Concord \$	Middlesex	139	26	43.2	-1.9	70	16	27	8	40	4.43	+1.20	1.35	14.5	16	6	10	14	nw.	Fred A. Tower.
Fall River	Bristol	200	50	44.0	-2.4	64	29	32	3†	29	4.78	+0.86	1.32	9.2	15	7	12	11	nw.	C. V. S. Remington.
Fitchburg \$	Worcester	550	33	44.0	-1.6	71	16	27	3	35	2.76	-0.36	0.59	10.0	13	11	6	13	nw.	Dr. A. P. Mason.
Framingham \$	Middlesex	160	36	45.9	-0.8	70	30	29	8	32	4.09	+0.49	1.00	4.8	14	...	...	...	...	Met. Water Board.
Lawrence \$	Essex	51	32	43.4	-2.7	70	16	29	8†	37	4.48	+1.02	1.44	7.0	14	9	11	10	e.	Essex Company.
Lowell \$	Middlesex	100	31	45.0	-0.3	67	16†	29	3†	35	4.47	+0.76	1.59	...	11	...	...	...	...	Props. Locks & Canals.
Nantucket	Nantucket	47	30	42.8	-1.4	57	16	29	1	19	2.90	+0.26	0.82	0.2	17	9	7	14	n.	U. S. Weather Bureau.
New Bedford	Bristol	88	104	45.2	+0.8	62	29	34	8	22	3.76	-0.21	0.84	1.0	15	11	5	14	sw.	City Engineer.
Plymouth	Plymouth	50	31	41.8	...	59	14†	29	8†	23	5.22	+0.88	1.37	8.5	13	6	11	14	e.	Miss L. B. Knapp.
Provincetown	Barnstable	40	29	41.8	-3.0	58	13	28	13	30	3.70	+0.40	1.12	T.	14	15	1	14	nw.	(Gideon Bowley.
Rockport \$	Essex	25	14	42.3	...	60	13	31	10	22	3.67	...	0.73	3.8	19	14	4	12	w.	U. S. C. G. Station.
Rutland \$	Worcester	1,160	14	41.4	...	67	29	26	9	32	3.67	...	0.76	12.3	15	14	4	12	w.	State Sanatorium.
Springfield	Hampden	199	6	46.8	+0.3	76	30	30	3†	37	3.49	+0.26	0.80	6.9	15	8	6	16	ne.	U. S. Armory.
Turners Falls \$	Franklin	200	30	45.1	-0.5	71	30	28	3	37	4.08	+1.51	0.63	...	15	10	6	14	...	Turners Falls Co.
Westboro	Worcester	298	42	48.2	+2.0	70	16†	33	3	28	3.72	+0.27	0.82	10.0	13	...	...	...	se.	Miss E. W. Newcomb.
Williamstown \$	Berkshire	711	35	43.6	-0.4	70	30	27	3†	37	2.48	-0.25	0.58	8.2	13					



Daily Precipitation for April, 1916.

Stations.	Watershed.	Day of month.																															Total	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Maine.																																		
Ashland	St. John				.60			T.	.42	.03	.01	T.							.01														1.07	
Bar Harbor	Coast				.05		.95		* 1.40		.05								1.20														3.85	
Cambridge	Kennebec				.05		.20		.40																			.15	.40	.50			0.89	
Cornish	Saco				.20		.29		1.30		.07		.30					.10	.85				.35	1.46	.40		.21			.70			6.23	
Danforth	Penobscot	.25							.65									.60															2.57	
Eastport***	Coast		.15		.04	.55	.05		.43	.12	.02	.06						.71	T.			T.					.07			.25			1.82	
Eustis	Kennebec		.05	.03	.35	.41	T.		.42	.16		T.	T.	.05	.10		.02	.60	.16			T.				.06	.08		.21	.09	T.		1.52	
Fairfield	do								.29						.08			.66									.13	.01					2.46	
Farmington	do		T.		T.	.23	.42		.70	.22	T.			.07	.25		.07	.70	.25						.28		.20			.01			1.32	
Gardiner	do				.06	.23			.34	.05		.10	.02	.10	.17		.02	.01	.12						.84	.20		.27		.06			4.28	
Greenville***	do		T.		.10	.25	.20		.50	.10		T.													.70	.30		.41	.01	.36			4.06	
Houlton	St. John				.15				.50									.26	.63				.08	.16				.17					2.45	
Howe Brook	Penobscot			T.		.70	.22	.20	.30		T.							.08												.70			1.35	
Lewiston	Androscoggin				.10	.03	.31		.80	.03		.10	.26				.19	.60	.06			*	1.48	.16			.32		.32				1.59	
Madison	Kennebec				.42		.50	.16	.62		.10	.15					.62	.78				.56	.12			.11							1.76	
Millinocket	Penobscot		.07		.43	T.	T.	.24	.70		.01						.53	.23				.05				.07	.06						4.32	
North Bridgton	Saco	T.		.04	.18		.30		.70	.30		.06		.25	.03																		2.39	
Oquossoc	Androscoggin																																5.04	
Orono	Penobscot		T.	.11		T.	.10		.80	.50																								
Patten	do		T.			.30		.60																									3.63	
Portland***	Coast			.04	.10	.01	.19	1.28			.18			.32			.12	.64															1.54	
Presque Isle	St. John				.80		T.	.60	.30		.05	T.																					5.56	
Rumford	Androscoggin			.11	.09	.43	.05	.52			T.				.29		.10	.40															1.75	
Van Buren	St. John			.12		.95	T.		T.	.30		T.	T.																				3.98	
Winslow	Kennebec						.23	.52		.03				.18																			1.40	
																																	2.72	
New Hampshire.																																		
Alstead Center	Connecticut				.10	.09		.15		.53			.11	T.	.35	.03		.11	.01		T.	.01	.72	.33	.26			.06		.23	.04			3.13
Bethlehem	do		T.		.30		.45		.20			.03			.50			.04	.49	.18			T.	.09										2.39
Brookline	Merrimack			.18			.20	.60			.04				.73																			1.80
Concord***	do			.12		.08	.07	.04	.28			.11			.34			.05	.01				.03	.58	.58	.06	T.	.12		.49				2.96
Durham	do				.04	.05			.44			.13	*		.69			.04	.35				.03	.30	1.16	.66	T.	1.24		.16				5.29
Franklin	do			.15	.12		.17		.49	.03		.19			.59	.08		.05	.05				.04	.26	.77	.13		.04	.32	.05				3.53
Glencliff	do	.02		.30		.25		.02	.60	.10					.30			.31	.15				*	1.32				.18		.20				3.75
Hanover	do			.03		.04		.75		T.					.47		.02		.30			T.	.25	.70	.30					.31				3.17
Keene	Connecticut		T.		.06	.08		.15	.51		.11				.58	.02		.17	.04			.03	.40	.43	.06	.01		.05	.05	.27	.01	T.		3.06
Nashua	do			.16	.13		.16	T.	.63		.15	T.			.53			.13	T.			T.	.75	.24	.14		T.			.24	.03			3.29
Newton	Merrimack			.04				.92							.76			.01	.03			T.	.37	.65	.22	T.	T.			.13	.03			4.38
Plymouth	do			.10		T.	T.	T.	.55		.10	T.			.48			.05	T.			T.	T.	.57	.90	.35		.16						4.69
	do			.07	.12		.16	.22			.12				.26	.09		.05	.08	.15														2.27
Vermont.																																		
Bloomfield	Connecticut		.03		.16		.85	.01	.15			.03	.01	.14						.43	.42													2.56
Burlington***	Champlain	T.		.18	.02	.29	.24	.07	T.		.04			.33				.11																1.85
Cavendish	Connecticut			.26			.87	.33			.10			.75				.11																4.59
Chelsea	do			.20	.08		.12	.30			.14			.40																				2.25
Cornwall	Champlain	T.		.15	.08		.05				.15			.30																				1.82
Enosburg Falls	do	T.	T.		.12		.42	.04			.13	.03			.24	.12	.10																	1.62
Hyde Park	do		.01		.41		.34	.01			.01	.46			.12																			2.63
Norfield***	Champlain	T.	T.		.19	.05	.12	.03	.12					.48				.09	.02	.26				.43	.36									1.94
Somerset	Connecticut		.20		.08	.20	.30	.61	.25		.11			.79				.11						*	.63	.80		.18	*	.27	.12			4.70
St. Johnsbury	do		.01		.01	.47	.51	.09	.02		T.	T.		.26	.09																			1.68
Vernon	do					.11	.30	.12		T.	T.			.71				.07																2.44
Wells	Champlain			.07	.11		.28	.13						.60				.16																2.25
Woodstock	Connecticut			.32		.09		.46		.03				.45																				3.26
Massachusetts.																																		
Amherst	Connecticut	T.		.11		.06		.24	.27		.04	.03	.76					.06					.03	.20	1.29	.07								3.69
Ashland	Merrimack			.17		.04		* .82		.20			.69						.07	.02			.01	*	*	.89								4.06
Bakers Bridge II	do			.09			.31		.09		.10		.70						.05					*	.80	.22								4.27
Bedford	do			.04			.06	.04	.55		.11		.81						.07	.01				.68	.82	.01		.19						4.17
Blue Hill	Coast		.12	.03		.11	.82			.12	T.	.81	.14					.05	.04	.02	T.	.02	.60	.44	.16		.21	T.	1.68					5.43
Boston***	do		.05	T.	T.	.02	.26	.29		.07		.65						.07	.06			.06	.91	.52	.12		.20	T.	1.23					4.51
Brookton	Coast		.05			.05	.01	.38		T.		.49	.09					T.					.39	.19	.06		.25	T.	1.24	T.				3.20
Chestnut Hill	do		.11		.03		.28	.47		.06				.70				.10	.03				.											

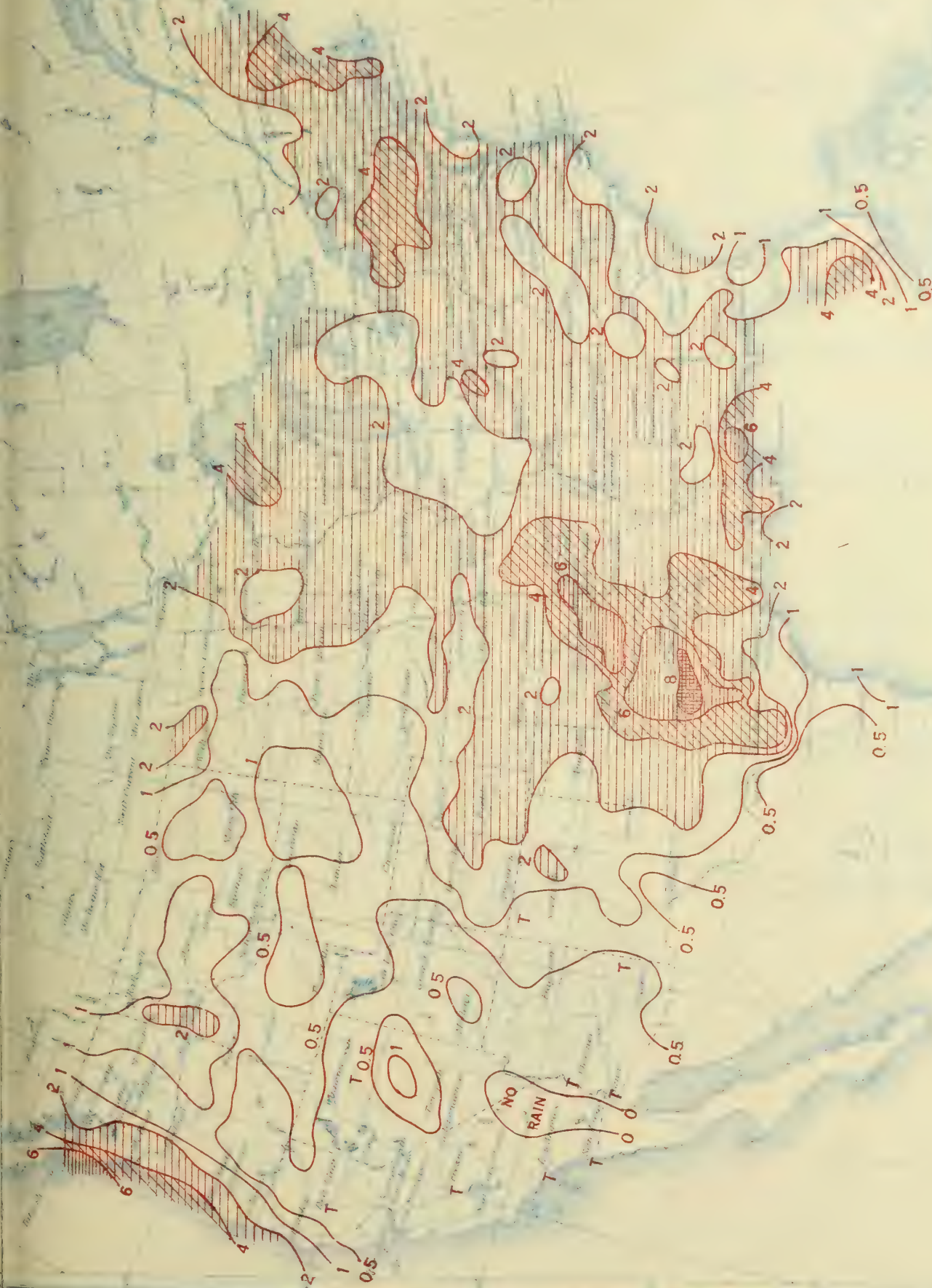


## Daily Temperatures for April, 1916.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean	
Maine.																																	
Bar Harbor	Maximum	55	56	48	45	40	48	40	34	43	44	45	55	59	50	45	52	49	45	45	60	62	52	50	53	52	50	48	50	48	53	49.1	
	Minimum	25	28	36	22	28	27	22	24	26	26	28	28	30	26	24	26	30	33	33	34	37	30	30	34	28	28	30	28	30	26	28.6	
Cornish	Maximum	68	62	55	45	57	52	50	50	36	57	63	45	65	44	56	71	63	51	58	70	70	52	47	47	63	46	60	43	70	69	56.3	
	Minimum	28	28	25	25	30	27	30	25	30	24	28	33	30	26	32	28	31	40	33	28	40	32	39	40	34	38	39	36	34	30	31.8	
Eastport	Maximum	39	51	43	45	39	45	38	47	36	42	49	46	53	44	43	58	50	38	49	56	56	51	48	46	48	45	48	45	40	49	45.9	
	Minimum	32	33	27	29	30	32	33	30	28	25	32	36	35	32	33	31	34	34	35	36	37	39	40	39	35	37	38	37	33	38	33.7	
Greenville	Maximum	55	42	38	35	39	46	37	45	37	42	53	43	48	41	47	63	65	41	38	48	57	55	54	56	64	52	54	56	53	62	49.0	
	Minimum	29	30	20	17	26	30	31	21	24	21	34	24	34	23	31	26	29	32	33	31	27	32	40	36	29	34	35	36	32	29	29.4	
Millinocket	Maximum	58	49	43	43	44	50	44	52	42	45	54	44	56	46	52	68	70	57	50	55	59	58	57	61	65	59	61	57	52	61	52.9	
	Minimum	23	36	32	16	28	29	26	28	26	23	27	35	25	35	26	28	33	35	29	28	34	40	37	28	34	35	38	39	29	30.1		
Orono	Maximum	64	53	57	47	43	52	53	51	52	47	54	44	55	55	50	60	65	61	51	58	60	63	63	56	63	65	62	64	53	62	56.2	
	Minimum	31	38	26	24	31	28	30	27	29	24	28	32	33	26	32	35	24	33	33	22	28	36	45	34	31	38	40	39	37	32	32.0	
Portland	Maximum	47	54	43	38	52	48	42	43	54	44	52	42	59	42	54	51	51	44	51	56	57	50	45	46	46	43	54	40	59	57	48.4	
	Minimum	35	36	30	31	30	33	33	30	28	27	34	38	36	31	33	36	40	35	39	37	43	39	38	40	38	39	39	37	38	35	35.3	
Presque Isle	Maximum	53	48	40	40	40	46	42	45	47	44	56	48	46	55	50	61	67	60	53	54	58	60	63	65	68	60	70	60	46	57	53.4	
	Minimum	29	35	19	20	27	20	22	18	28	22	25	30	36	25	32	22	28	36	35	34	38	42	40	30	18	35	38	31	31	28	29.1	
Rumford	Maximum	59	49	44	28	46	49	39	45	33	46	54	44	54	43	52	64	61	44	43	57	63	54	48	47	60	45	56	44	65	67	50.4	
	Minimum	32	34	27	24	30	32	33	26	23	30	29	33	34	30	34	34	34	38	39	36	33	35	42	42	42	44	41	40	41	36	32	33.8
Van Buren	Maximum	50	52	32	38	37	45	42	46	42	43	55	56	48	48	50	62	65	66	58	55	59	59	66	67	67	60	63	60	55	59	53.5	
	Minimum	27	31	20	12	27	13	20	22	25	22	24	22	23	27	31	23	22	36	35	33	29	43	40	27	30	30	35	20	31	31	27.2	
New Hampshire.																																	
Alstead Center	Maximum	57	58	49	38	48	63	63	40	33	45	52	48	51	43	47	66	60	49	53	53	48	46	41	45	61	52	51	48	67	69	51.5	
	Minimum	37	38	35	31	31	30	27	28	25	28	38	33	31	30	33	40	37	35	37	42	40	37	33	31	37	34	35	35	40	34	34.1	
Bethlehem	Maximum	62	53	40	37	41	47	41	45	36	44	53	45	52	42	45	62	59	42	37	52	62	53	46	52	63	53	47	65	66	49.9		
	Minimum	34	32	19	24	27	26	27	20	27	23	35	36	29	29	25	27	38	35	37	26	36	35	39	39	32	39	34	37	29	38	30.8	
Concord	Maximum	65	50	49	37	53	52	42	45	33	50	58	51	58	41	51	68	59	49	54	57	50	48	46	46	62	46	55	42	69	70	51.9	
	Minimum	30	31	30	32	31	29	30	25	30	29	38	31	36	31	33	31	39	38	39	38	42	40	39	39	32	39	37	36	36	34	34.2	
Franklin	Maximum	66	56	51	41	52	56	44	49	34	59	59	51	59	09	51	70	63	48	54	61	52	50	45	47	67	60	57	50	71	74	54.2	
	Minimum	29	41	24	26	31	28	28	23	30	28	27	37	31	29	32	29	31	40	37	34	44	40	36	41	31	39	34	37	31	32	32.7	
Hanover	Maximum	61	52	48	38	50	52	43	50	37	50	57	48	58	46	51	70	66	48	55	54	48	50	47	57	66	52	57	47	71	73	53.2	
	Minimum	29	35	22	25	30	26	26	27	29	28	27	37	29	29	30	26	34	39	36	27	40	39	39	41	31	40	34	39	32	38	32.1	
Nashua	Maximum	64	54	52	42	55	50	41	42	36	50	58	58	56	52	54	70	62	54	58	60	60	48	40	42	60	50	52	50	68	66	53.6	
	Minimum	32	42	30	34	34	30	32	29	32	28	28	40	36	34	34	30	38	44	40	40	48	40	38	40	32	39	36	34	35	36	35.5	
Plymouth	Maximum	59	55	45	40	49	52	42	47	40	47	55	50	56	50	49	65	59	48	46	55	63	50	47	51	65	54	58	50	67	71	52.8	
	Minimum	26	39	25	24	30	27	28	24	28	20	24	35	29	26	30	28	30	40	36	32	37	35	40	41	30	40	33	39	30	32	31.6	
Vermont.																																	
Burlington	Maximum	57	44	40	37	41	51	34	42	36	48	55	48	55	41	48	63	59	46	50	46	54	54	50	58	63	60	57	62	66	67	51.2	
	Minimum	37	31	25	25	31	29	27	28	29	31	36	35	31	28	30	45	38	35	30	37	42	41	41	39	43	40	44	41	46	46	46.4	
Enosburg Falls	Maximum	55	56	41	40	39	52	41	47	41	47	58	52	57	47	53	67	61	51	53	51	50	59	50	59	57	57	53	57	63	57	52.4	
	Minimum	31	34	21	22	32	25	21	27	31	27	29	38	26	29	28	26	40	38	34	26	33	40	43	41	35	38	35	40	38	41	38.2	
Northfield	Maximum	60	45	42	37	46	51	38	45	34	49	54	45	58	30	47	65	57	47	47	50	59	52	47	58	64	54	58	66	69	69	51.2	
	Minimum	30	28	32	23	28	20	26	27	29	28	26	33	27	23	28	24	34	35	34	26	38	40	39	34	30	36	32	35	29	39	30.3	
St. Johnsbury	Maximum	62	59	46	42	48	53	51	48	45	50	58	55	59	55	50	68	64	51	46	57	68	64	54	59	68	67	59	59	68	73	56.9	
	Minimum	39	38	21	22	30	22	27	25	31	27	25	31	27	25	28	32	39	34	24	33	32	42	42	33	33	31	41	39	37	31	31.1	
Wells	Maximum	55	50	40	36	46	46	40	44	38	44	52	50	50	44	58	56	48	44	50	60	54	55	54	64	62	56	55	55	62	65	50.3	
	Minimum	35	35	20	26	31	26	26	26	28	24	30	40	30	24	32	42	34	33	32	38	35	36	40	36	40	36	40	32	34	42	32.6	
Massachusetts.																																	
Amherst	Maximum	65	49	56	37	54	59	46	48	38	50	60	54	53	39	54	70	69	47	62	64	60	48	43	52	63	53	54	44	70	74	54.3	
	Minimum	36	36	28	34	33	30	32	29	29	30	2																					



Scale of Shades.





Day of month.

Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.

Year.	Temperature.		Precipitation.		Weather.		Wind.		Year.	Temperature.		Precipitation.		Weather.		Wind.	
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with an inch or more.	Average snowfall.	Clear days.		Partly cloudy days.	Cloudy days.	Percentage of days with a steady sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	
1888.....	49.1	75.5	17.5	2.75	11	4	11	13	6	nw.	9.4	13	3.5	10	8	ne.	
1889.....	48.7	75.2	17.5	2.15	9	2	10	11	7	ne.	10.4	12	3.5	10	9	w.	
1890.....	44.2	72.6	16.6	2.63	9	1	14	9	7	ne.	10.7	12	3.6	10	63	w.	
1891.....	47.7	74.1	17.9	2.40	8	0	14	11	9	nw.	11.0	12	3.5	10	63	se.	
1892.....	44.8	72.4	16.9	1.60	11	1	11	11	8	nw.	10.9	13	3.5	11	70	nw.	
1893.....	47.8	74.5	17.3	3.10	11	7	13	12	7	nw.	11.0	14	3.6	10	73	nw.	
1894.....	41.8	71.1	15.7	2.47	10	7	13	10	10	sw.	11.3	12	3.5	10	90	w.	
1895.....	43.8	73.5	16.1	1.95	12	10	10	11	10	sw.	11.3	12	3.5	10	53	w.	
1896.....	47.8	77.6	17.6	1.41	11	3	11	8	15	sw.	11.7	14	3.5	10	70	ne.	
1897.....	46.1	75.7	16.9	1.73	10	1	12	11	9	sw.	11.2	16	3.5	12	53	w.	
1898.....	47.9	77.8	17.5	1.41	13	3	13	8	15	ne.	11.2	12	3.5	11	57	w.	
1899.....	44.2	72.2	16.8	1.68	6	2	17	8	5	ne.	9.7	12	3.5	12	57	w.	
1900.....	44.5	74.1	16.8	1.82	14	7	14	7	9	sw.	11.0	11	3.5	10	51	w.	
1901.....	44.7	75.7	16.9	1.80	14	8	8	13	13	sw.	12.7	13	3.5	10	79	ne.	
1902.....	43.4	76.1	16.9	1.96	9	0	9	10	11	sw.	10.9	13	3.5	10	53	nw.	
1903.....	44.8	77.7	17.4	2.63	8	1	13	10	10	sw.	11.0	12	3.5	10	60	ne.	
1904.....	41.5	78.0	16.0	5.98	3	27	10	10	10	sw.	10.4	12	3.5	10	55	w.	
1905.....	43.7	77.7	17.2	2.26	1	16	12	10	10	ne.	10.7	12	3.5	10	63	w.	
1906.....	43.9	79.1	17.7	2.85	3	13	9	8	10	sw.	11.0	12	3.5	10	68	se.	
1907.....	49.0	77.7	17.3	3.20	2	23	9	13	11	sw.	13.1	11	8	11	48	nw.	
1908.....	42.8	90.4	12.8	1.50	11	2	7	13	9	8	59	10	10	48	nw.		
1909.....	43.9	86.6	12.2	1.59	5	26	12	2	5	11	48	10	10	48	nw.		
1910.....	48.7	81.1	12.3	3.07	3	10	9	12	12	12	53	10	10	53	nw.		
1911.....	41.3	82.4	11.8	2.23	2	31	6	7	10	17	51	10	10	66	nw.		
1912.....	41.0	81.5	11.5	1.37	14	4	12	10	10	12	55	10	10	53	w.		
1913.....	46.0	92.2	12.3	3.71	1	35	10	1	12	7	11	10	10	57	w.		
1914.....	49.8	98.1	13.4	4.66	3	18	12	4	11	7	12	10	10	57	w.		
1915.....	48.0	93.15	12.24	2.23	8	5	11	9	10	51	nw.	10.9	10	79	ne.		
1916.....	43.4	80.12	13.32	1.86	12	8	10	7	13	42	nw.	11.3	10	53	nw.		



N 5 Station

U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

NEW ENGLAND SECTION

MAY, 1916

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BY  
JOHN W. SMITH  
METEOROLOGIST

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
JUNE 19, 1916



Departure of the Mean Temperature from the Normal, May, 1916.



Shaded portions show excess (+).  
 Unshaded portions show deficiency (-).  
 Lines show amount of excess or deficiency.



U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

L. XXVIII. BOSTON, MASS., MAY, 1916.

No. 5.

GENERAL SUMMARY.

The month was cloudy and cool with precipitation above the normal. Although the average temperature was but little below normal, the day temperatures were, as a rule, low, with no "warm days," with temperature of 90° or above that usually seen at this season. Rain in copious amounts was frequent, at stations having less than three inches. The rainfall on the 17th was particularly heavy in southwestern Maine and the eastern New Hampshire, where amounts exceeding 4.00 inches in 24 hours were general, damaging highways and manufacturing interests on the rivers. The greatest amount reported the 17th was 6.72 inches at Durham, N. H. Heavy and killing frosts occurred in many localities during the first half of the month, but owing to the backward condition of vegetation, caused no damage. At the end of the month the season was considered to be about two weeks later than usual.

PRESSURE.

The mean sea-level atmospheric pressure for the section, 14 stations reporting, was 29.89 inches, which was the same as that of May, 1915, and 0.08 inch below the normal for the month. The highest monthly mean was 29.92 inches, at Fall River, Mass.; the lowest, 29.86 inches, at Eastport, Me. The highest recorded was 30.37 inches, at Burlington, Vt., on the 14th; the lowest, 29.18 inches, at Blue Hill Observatory, Hyde Park, Mass., on the 17th. The monthly range for the section was 0.19 inches.

TEMPERATURE.

The monthly mean for the section, as shown by the records of 14 stations, was 54.8°, which was 2.0° above the mean for May, 1915. During the past 28 years the average May temperature has been higher in 15 and lower in 13 years than that of the month in the present year. The highest average May temperature during this time was 60.6°, in 1911; the lowest, 49.9°, in 1877. The average temperature for the several states of the section was as follows: Maine, 52.5°; New Hampshire, 54.4°; Vermont, 53.4°; Massachusetts, 56.7°; Rhode Island, 54.1°; Connecticut, 57.3°. The average temperature for the section was 0.4° below the normal. The departures from the normal for the several states were as follows: Maine, -0.1°; New Hampshire, -0.8°; Vermont, -1.1°; Massachusetts, +0.2°; Rhode Island, -1.3°; Connecticut, 0.0°. The highest monthly temperature was 61.2°, at Westboro, Mass.; the lowest, 47.6°, at Eastport, Me. The highest recorded was 89°, at Torrington, Conn., on the 25th; the lowest, 24°, at Bloomfield and Enosburg Falls, Vt., on the 10th. The greatest local monthly range was 58°, at Bloomfield, Cavendish, Hyde Park and Woodstock, Vt.; the least, 30°, at Block Island, R. I., and Nantucket, Mass. The greatest daily range was 47°, at Torrington, Conn., on the 10th.

HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 14 stations reporting, was 72 per cent, which was 3 per cent above that of May, 1915, and 3 per cent below the normal for the month. The highest monthly average was 87 per cent, at Block Island, R. I.; the lowest, 67 per cent, at Northfield, Vt., and Hartford, Conn.

PRECIPITATION.

The average for the section, as shown by the records of 83 stations, was 3.85 inches, which was 1.63 inches above the average for May, 1915. During the past 28 years the average May

precipitation has been greater in 12 and less in 16 years than that of the present year. The greatest average May precipitation during this time was 5.83 inches, in 1901; the least, 0.68 inch, in 1903. The average precipitation for the several states of the section, was as follows: Maine, 4.36 inches; New Hampshire, 3.94; Vermont, 3.42; Massachusetts, 3.53; Rhode Island, 3.86; Connecticut, 3.87. The average precipitation for the section was 0.47 inch above the normal for the month. The departures from the normal for the several states, were as follows: Maine, +1.06 inches; New Hampshire, +0.69; Vermont, +0.22; Massachusetts, +0.13; Rhode Island, +0.08; Connecticut, +0.27. The greatest monthly amount was 7.78 inches, at Durham, N. H.; the least, 1.09 inches, at Houlton, Me. The greatest amount in any 24 hours was 6.72 inches, at Durham, N. H., on the 17th. The only snowfall reported was a trace at Portland, Me., on the 3d. The average number of days with 0.01 inch or more of precipitation was 11, which is the normal number for the month.

WIND.

The prevailing direction of the wind was from the northwest; the normal direction for the month is from the southwest, as determined from the records of the past 29 years. The average monthly wind movement for the section, 14 stations reporting, was 7,639 miles. The greatest monthly wind movement was 11,279 miles, at Block Island, R. I.; the least, 4,407 miles, at Concord, N. H. The average hourly velocity was 10.3 miles, which was 0.2 mile above that of May, 1915, and 0.2 mile below the normal average hourly velocity for May. The highest recorded velocity was 63 miles per hour from the west, at Blue Hill Observatory, Hyde Park, Mass., on the 12th. This is somewhat greater than the usual maximum velocity in May.

SUNSHINE AND CLOUDINESS

The average number of clear days for the section was 10; partly cloudy, 11; cloudy, 10, which compares with the normal for May of 11 clear, 10 partly cloudy, and 10 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 49, which was 7 per cent below the average for May, 1915, and 5 per cent below the normal for the month, as determined from the records of the past 24 years. The greatest percentage of possible sunshine in any May since the beginning of the automatic records in 1893, was 78, in 1903; the least, 39, in 1907.

DATES OF MISCELLANEOUS PHENOMENA.

*Halos, Lunar.*—Enosburg Falls, Vt., 15; New Haven, Conn., 12.

*Killing frosts.*—Grafton, N. H., 13, 14; Nashua, N. H., Northfield, Vt., Blue Hill, Mass., 10; Bloomfield and St. Johnsbury, Vt., 3, 10, 14; Amherst, Mass., 19.

*Auroras.*—Cornish, Madison, Me., Bethlehem, Hanover, N. H., Burlington, Vt., Blue Hill, Mass., Hartford, New Haven, Conn., 21; Eastport, Me., Northfield, Vt., 2, 21; Millinocket and North Bridgton, Me., 2; Enosburg Falls, Vt., 8.

*Halos, Solar.*—Eastport, Me., 5, 15; North Bridgton, Me., 14; Bethlehem, N. H., 22; Northfield, Vt., 5, 6, 8, 10, 11, 22, 27; Woodstock, Vt., 5, 10, 22, 29; Blue Hill, Mass., and New Haven, Conn., 8, 10, 22; Boston, Mass., 10, 22, 27; Nantucket, Mass., 22; Somerset, Mass., 10, 22; Norwalk, Conn., 11.

*Thunderstorms* (dates and number of observers reporting on each): Maine—7th, 4; 10th, 1; 11th, 2; 13th, 2; 22d, 1; 24th, 5; 25th, 5; 29th, 2. New Hampshire—4th, 1; 7th, 11; 8th, 3; 9th, 1; 11th, 3; 16th, 2; 30th, 4. Vermont—7th, 4; 8th, 2; 9th, 1; 10th, 1; 11th, 4; 16th, 5; 24th, 2; 25th, 1; 30th, 3. Massachusetts—3d, 2; 4th, 7; 7th, 4; 8th, 8; 9th, 2; 10th, 1; 11th, 1; 14th, 1; 15th, 1; 20th, 9; 25th, 1; 28th, 1; 29th, 5; 30th, 4; 31st, 1. Rhode Island—8th, 7; 15th, 1; 17th, 2; 20th, 3; 26th, 1; 28th, 2; 29th, 4. Connecticut—2d, 1; 8th, 13; 9th, 3; 15th, 4; 20th, 4; 28th, 8; 29th, 8; 30th, 7; 31st, 1.



## Climatological Data for May, 1916.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.					Precipitation, in inches.				No. of days.				Prevailing direction of wind.	Observer.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.			Partly Cloudy.	Cloudy.
Maine.																				
Bar Harbor \$	Hancock	20	30	51.8	-0.2	76	13	28	4	37	3.50	+0.01	2.60	0	6	15	9	7	sw.	William Miller.
Cornish	York	778	61	55.3	+0.7	84	29	32	17	39	5.46	+1.54	4.04	0	9	6	16	9	e.	T. H. West.
Eastport	Washington	53	44	47.6	+0.7	74	11	34	1	35	1.38	-2.42	0.38	0	16	2	14	15	sw.	U. S. Weather Bureau.
Fairfield	Somerset	90	31	54.0	-0.1	78	29	30	14	36	2.18	-0.70	0.95	0	5	18	8	5	.....	E. F. Parker.
Farmington	Franklin	450	19	53.2	-0.9	83	29	38	5	40	6.79	+3.04	3.21	0	14	3	17	11	nw.	State Normal School.
Gardiner \$	Kennebec	163	24	54.3	-1.0	79	29	33	1	33	4.65	+1.03	2.84	0	16	14	10	7	sw.	Samuel D. Soule.
Greenville	Piscataquis	1,140	12	49.9	.....	79	29	26	2	39	4.59	+1.12	1.82	0	15	.....	.....	.....	sw.	U. S. Weather Bureau.
Houlton	Aroostook	362	14	51.4	.....	77	22	29	1	37	1.09	-1.09	0.60	0	4	8	16	7	sw.	Bangor & Aroostook R.R.
Langtown	Franklin	.....	.....	50.4	.....	81	29	25	5	43	3.21	.....	1.10	0	10	8	11	9	e.	Union Water Power Co.
Lewiston	Androscoggin	185	33	54.2	-0.4	79	29	37	1	28	6.46	+3.04	5.06	0	12	5	18	8	sw.	William Jardine.
Madison \$	Somerset	257	13	53.1	.....	81	30	31	5	37	6.73	+2.84	3.60	0	13	22	2	7	w.	Great Northern Paper Co.
Millinocket	Penobscot	386	13	53.0	.....	80	29	27	15	40	4.01	+0.93	1.91	0	15	9	3	19	w.	C. L. Chadbourne.
North Bridgton	Cumberland	450	23	54.3	-0.6	83	29	32	1	35	6.45	+2.92	4.33	0	13	9	13	9	n.	Maine State College.
Orono \$	Penobscot	129	47	54.2	+1.5	80	22	30	1	44	4.42	+1.04	1.91	0	12	18	5	8	nw.	Bangor & Aroostook R.R.
Patten	do	550	14	52.2	.....	80	29	25	1	45	2.80	+0.16	1.20	0	6	13	3	12	se.	U. S. Weather Bureau.
Portland	Cumberland	99	45	52.4	-1.1	76	11	38	19	30	5.64	+1.97	4.86	T.	12	5	16	10	sw.	E. M. Libby.
Presque Isle.	Aroostook	1,000	7	50.8	.....	75	22	25	1	38	3.44	0.0	1.05	0	11	12	9	10	e.	Charles A. Mixer.
Rumford \$	Oxford	505	23	53.4	-0.3	80	29	34	5	30	5.87	+2.36	3.45	0	13	19	3	9	nw.	Rev. J. M. Thomas.
Van Buren	Aroostook	510	12	50.7	.....	75	22	26	1	39	4.85	+1.71	1.03	0	14	8	9	14	sw.	Hollingsworth & Whitne
Winslow	Kennebec	90	21	54.0	+0.4	81	29	31	1	41	3.67	+0.56	.....	0	11	13	10	8	sw.	.....
New Hampshire.																				
Alstead Center	Cheshire	1,120	12	55.0	-2.9	80	29	33	10	29	3.20	-0.08	2.08	0	11	19	5	7	sw.	Frank Dewing.
Bethlehem	Grafton	1,470	24	52.0	-2.0	79	29	27	10	38	3.48	+0.16	0.96	0	15	11	13	7	sw.	Benjamin Tucker.
Concord	Merrimac	350	56	55.4	-0.3	84	29	35	1	38	3.95	+0.71	2.77	0	11	10	12	8	sw.	U. S. Weather Bureau.
Durham \$	Stafford	88	21	54.4	-0.4	80	25	31	1	37	7.78	+4.90	6.72	0	10	11	12	8	nw.	N. H. Agr. College.
Franklin	Merrimac	440	17	55.9	-0.4	86	29	33	1	44	4.56	+1.50	2.85	0	13	12	10	9	nw.	Dr. C. F. Webster.
Glencliif	Grafton	1,650	3	51.0	.....	79	29	32	10	35	3.93	+0.65	1.59	0	11	7	13	11	nw.	P. K. Kimball.
Grafton	do	863	30	52.8	-0.5	83	29	27	10	43	3.25	-0.29	2.15	0	7	17	6	8	w.	Dartmouth College.
Hanover	do	603	82	54.8	-0.6	84	29	30	10	37	3.57	+5.28	1.77	0	10	3	14	14	sw.	Samuel Wadsworth.
Kenne \$	Cheshire	506	31	55.4	-0.9	83	29	28	10	41	3.25	+0.25	1.54	0	10	13	11	7	nw.	C. B. Stevens.
Nashua \$	Hillsboro	125	31	57.5	+0.3	84	29	36	1	36	0.02	+1.81	3.56	0	15	3	21	7	nw.	W. C. Gale.
Newton	Rockingham	126	28	54.2	-1.0	81	25	29	1	41	5.26	+1.94	3.82	0	10	6	20	5	nw.	Mrs. Hattie G. Trow.
Plymouth	Grafton	500	28	54.4	+0.8	85	29	30	14	41	3.88	+0.61	2.37	0	10	17	3	11	nw.	.....
Vermont.																				
Bloomfield	Essex	404	9	51.6	.....	82	29	24	10	40	3.26	+0.07	5.75	0	16	12	7	12	s.	Lyman Falls Power Co.
Burlington	Chittenden	.....	.....	53.9	0.0	80	29	30	10	30	4.69	+1.86	1.63	0	14	1	15	15	s.	U. S. Weather Bureau.
Cavendish	Windsor	910	13	54.4	.....	84	29	26	9	40	3.12	-0.01	1.90	0	7	11	14	6	.....	Colonial Power Co.
Chelsea	Orange	840	21	52.8	+0.2	81	29	25	10	40	3.69	+0.54	1.62	0	9	8	9	14	.....	W. F. Dewey.
Cornwall	Addison	517	23	55.6	-1.4	80	29	30	10	32	2.81	-0.23	1.50	0	10	8	15	8	n.	C. H. Lane.
Enosburg Falls	Franklin	601	25	51.2	-4.4	75	24	24	10	35	4.14	+0.53	1.56	0	15	11	14	6	nw.	J. W. Pomeroy.
Hyde Park	Lamoille	576	4	52.9	.....	83	29	25	10	39	3.23	.....	1.07	0	10	7	10	14	sw.	A. V. Wiswell.
Northfield	Washington	876	30	51.4	-2.1	79	29	27	10	35	3.83	+1.03	2.10	0	11	4	9	10	sw.	U. S. Weather Bureau.
Somerset	Windham	2,096	5	49.6	.....	71	25	28	2	34	3.94	.....	1.21	0	16	8	13	10	sw.	Power Construction Co.
St. Johnsbury	Caledonia	711	23	54.9	-0.2	84	29	28	10	38	4.48	+0.39	1.04	0	13	10	10	11	nw.	Fairbanks Museum.
Vernon	Windham	310	1	56.5	-1.3	85	29	38	3	30	2.86	-0.37	1.02	0	9	11	7	13	se.	Conn. River Power Co.
Wells	Rutland	750	25	55.0	-0.4	80	29	34	10	31	1.95	-1.51	0.85	0	11	4	20	7	sw.	E. R. Pember.
Woodstock	Windsor	700	24	55.0	-0.1	84	29	29	10	42	3.50	+0.13	2.08	0	6	10	10	11	.....	John S. Eaton.
Massachusetts.																				
Amherst \$	Hampshire	222	27	56.2	-0.8	82	29	36	10	36	3.21	-0.27	0.96	0	12	9	9	13	sw.	Mass. Agr. College.
Blue Hill	Norfolk	640	32	55.0	-0.5	80	25	38	19	28	3.97	+0.60	2.07	0	15	8	11	12	sw.	Blue Hill Observatory.
Boston	Suffolk	124	46	58.6	+2.0	85	25	44	1	28	2.83	-0.68	2.03	0	11	8	13	10	sw.	U. S. Weather Bureau.
Chestnut Hill \$	do	124	36	58.3	+0.4	81	11	36	1	41	3.56	+0.02	1.50	0	16	23	0	8	.....	Met. Water Board.
Clinton \$	Worcester	370	20	56.8	.....	81	28	39	9	28	3.30	-0.48	.....	0	12	.....	.....	.....	.....	Do.
Concord \$	Middlesex	139	26	56.4	+0.4	82	29	35	1	36	2.91	-0.22	1.75	0	13	7	13	11	nw.	Fred A. Tower.
Fall River	Bristol	200	50	56.6	-0.2	80	25	41	10	26	4.78	+1.02	2.37	0	15	6	23	2	sw.	C. V. S. Remington.
Fitchburg \$	Worcester	550	33	57.0	-0.3	86	29	35	10	35	3.30	-0.07	2.03	0	12	11	12	8	nw.	Dr. A. P. Mason.
Framingham \$	Middlesex	160	36	58.7	+0.6	82	29	37	1	33	3.54	+0.12	.....	0	13	.....	.....	.....	.....	Met. Water Board.
Lawrence \$	Essex	51	32	56.8	-1.3	82	25	36	1	34	4.74	+1.33	3.47	0	13	6	20	5	w.	Essex Company.
Lowell \$	Middlesex	100	31	58.5	-1.0	81	29	37	1	35	4.29	+0.79	3.13	0	11	.....	.....	.....	.....	Props. Locks & Canals.
Nantucket	Nantucket	47	30	52.0	-1.0	70	29	40	7	21	4.35	+1.68	1.44	0	14	11	12	12	sw.	U. S. Weather Bureau.
New Bedford \$	Bristol	88	104	57.2	+2.5	80	11	43	1	27	5.53	+1.61	3.17	0	12	11	9	11	sw.	City Engineer.
Plymouth	Plymouth	50	31	53.9	.....	79	12	36	1	31	3.42	+0.18	1.21	0	12	12	9	10	e.	Miss L. B. Knapp.
Provincetown.	Barnstable	40	29	53.9	-0.4	77	11	38	1	29	2.42	-0.70	1.35	0	6	15	8	8	sw.	Gideon Bowley.
Rockport \$	Essex	25	14	53.3	.....	78	11	38	1	31	2.61	.....	1.59	0	9	16	9	6	sw.	U. S. C. G. Station.
Rutland \$	Worcester	1,160	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	15	10	10	11	nw.	State Sanatorium.
Springfield	Hampden	199	6	58.9	-0.5	84	25	39	19	31	3.04	-1.06	0.78	0	8	10	10	11	.....	U. S. Armory.
Turners Falls \$	Franklin	200	70	57.4	.....	87	29	39	10	33	3.22	.....	1.79	0	15	13	6	12	.....	Turners Falls Co.
Westboro	Worcester	298	42	61.2	+2.1	80	27	42	10	26	3.58	+0.18	2.64	0	8	.....	.....	.....	.....	Miss E. W. Newcomb.
Williamstown \$	Berkshire	711	35	56.0	-0.5	80	29	35	19	30	3.52	+0.24	1.06	0	10	7	11	13	sw.	Williams College.
Worcester	Worcester	518	24	59.0	+1.3	80	29	45	10	28	3.16	-0.70	1.92	0	9	8	15	8	sw.	G. W. Swan.
Rhode Island.																				
Block Island	Newport	26	36	52.9	0.0	71	11	41	1	24	3.20	-0.55	1.84	0	14	8	9	14	sw.	U. S. Weather Bureau.
Bristol \$	Bristol	53	30	55.4	-0.2	75	25	42	1	23	4.16	+0.77	1.65	0	14	12	12	7	s.	N. G. Herreshoff.
Kingston \$	Washington	250	27	51.0	-4.0	80	25	32	1	33	4.60	+0.59	2.40	0	11	7	13	11	w.	Nathaniel Helme.
Narragansett Pier	Newport	22	34	54.3	-0.7	80	11	37	11	34	3.49	-0.76	1.87	0	13	14	8	9	sw.	U. S. Weather Bureau.
Providence	Providence	182	12	57.0	-1.5	83	25	40	10	29	3.85	+0.34	2.02	0	14	6	16	9	s.	Do.
Connecticut.																				
Bridgeport	Fairfield	20	23	59.2	.....	85	25	39	1	32	3.06	-0.32	1.44	0	11	11	15	5	sw.	William Jennings.
Canton \$	Hartford	900	55	56.8	+1.2	84	25	34	19	33	4.67	+0.76	1.80	0	11	11	9	11	nw.	G. J. Case.
Colchester	New London	370	30	56.2	-1.4	83	25	35	14	35	5.01	+1.22	2.51	0	13	8	12	11	w.	S. P. Willard.
Cream Hill	Litchfield	1,300	20	54.8	-1.0	80	29	34	10	32	3.01	-1.23	0.50							

The departures from normal temperature and precipitation are computed only for such stations as have ten or more years of record, but all complete reports are used in determining section or state means. Reference letters, a, b, c, appearing in the table indicate number of days missing; for example, b represents two days, etc.

† Also on other dates. \* Received too late to be included in means and summaries. \*\* Temperature data are from observed readings of the dry bulb; means are computed from observed readings. T. Precipitation is less than 0.01 inch rain or melted snow. § Thermometers not supplied by Weather Bureau.

‡ Post-office addresses of these stations are as follows: Cornwall, Middlebury, Vt.; Blue Hill, Hyde Park, Mass.; Cream Hill, W. Cornwall, Conn.; Canton, Collinsville, Conn.



## Day of month.

Continued on page 40.



## Daily Temperatures for May, 1916.

Stations.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean.	
Maine.																																		
Bar Harbor	Maximum	58	69	60	53	60	62	60	62	58	68	68	70	76	72	70	69	68	62	69	58	60	68	60	62	66	60	68	68	66	64	68	64.7	
	Minimum	32	35	40	27	40	38	40	35	35	42	44	42	40	35	36	42	40	38	38	38	35	34	38	42	42	36	50	46	34	46	42	38.8	
Cornish	Maximum	71	74	62	68	65	74	77	72	68	66	79	65	70	70	57	50	46	60	60	71	75	77	54	75	83	73	76	57	84	66	73	68.5	
	Minimum	32	42	32	44	33	40	43	38	43	32	45	46	39	32	39	43	49	41	37	39	48	38	47	45	45	48	44	51	53	54	53	42.1	
Eastport	Maximum	50	54	55	61	52	48	46	56	59	59	74	57	58	59	58	46	48	49	48	62	56	58	44	53	51	55	67	60	55	48	64	55.2	
	Minimum	34	38	40	40	39	37	36	39	42	38	39	46	41	41	39	39	40	39	39	39	42	38	38	39	41	41	48	43	43	42	43	40.1	
Greenville	Maximum	68	58	60	59	64	70	64	65	56	59	67	59	53	56	60	54	60	46	47	59	71	77	57	69	66	58	70	66	79	64	60	60.9	
	Minimum	32	26	31	37	29	43	39	35	42	33	42	34	37	35	33	39	37	38	39	41	47	35	42	42	42	43	47	44	50	47	46	38.9	
Millinocket	Maximum	69	63	63	59	65	74	72	65	62	61	71	64	58	61	64	60	43	54	52	65	74	75	65	72	70	63	68	74	80	63	67	65.0	
	Minimum	29	39	36	41	28	43	36	33	43	34	45	47	40	35	27	43	39	40	40	41	47	40	44	44	50	44	51	39	51	51	48	40.9	
Orono	Maximum	68	70	68	65	65	73	74	67	66	63	75	76	63	64	70	64	49	53	54	64	72	80	47	67	75	74	67	71	75	68	68	66.9	
	Minimum	30	43	38	46	33	41	39	40	46	36	43	43	40	37	37	43	37	38	40	43	38	36	42	43	45	46	50	43	49	47	45	41.4	
Portland	Maximum	54	70	57	62	55	65	69	58	64	62	76	59	66	60	52	48	45	56	57	66	63	59	50	59	58	66	62	54	72	57	67	60.3	
	Minimum	49	43	41	42	42	42	47	48	47	42	43	44	42	41	45	42	40	41	38	43	45	43	45	45	45	48	52	49	51	50	50	44.5	
Presque Isle	Maximum	63	60	60	56	67	70	68	63	63	58	67	55	52	60	60	56	59	47	60	69	75	65	70	74	60	67	74	72	66	60	62	62.2	
	Minimum	35	40	31	42	29	41	40	29	42	32	42	41	34	27	26	35	40	40	40	38	36	49	49	45	43	49	46	42	53	53	45	39.5	
Rumford	Maximum	67	62	69	56	62	70	70	66	53	66	72	51	60	62	53	50	44	52	56	65	70	72	51	72	75	64	72	60	80	58	61	62.6	
	Minimum	40	44	42	38	34	44	45	40	43	38	48	44	42	31	37	44	39	43	44	44	52	42	48	48	50	51	49	48	52	54	53	44.3	
Van Buren	Maximum	65	58	56	52	64	68	63	58	61	59	63	55	49	55	60	58	58	56	46	62	73	75	71	71	70	56	70	73	71	66	68	62.1	
	Minimum	26	41	31	40	28	42	40	30	42	40	42	38	36	32	30	39	41	40	35	35	40	43	45	45	42	48	46	39	42	55	48	39.8	
New Hampshire.																																		
Alstead Center	Maximum	65	64	58	67	65	69	70	71	60	55	69	65	65	66	60	50	45	48	58	61	72	67	61	76	76	65	67	60	80	75	63	64.3	
	Minimum	47	50	41	44	45	48	48	47	48	33	47	41	38	40	45	43	42	40	40	41	43	44	43	47	53	50	47	52	56	58	53	45.6	
Bethlehem	Maximum	76	62	56	55	61	68	67	69	59	59	67	56	57	58	52	55	52	50	53	59	68	70	62	74	73	61	71	62	79	67	59	62.6	
	Minimum	38	47	31	38	36	48	46	36	41	27	41	38	32	83	38	41	39	38	37	37	43	44	46	45	46	45	40	51	52	55	47	41.3	
Concord	Maximum	73	62	67	66	62	75	75	74	61	60	74	59	67	68	34	49	47	53	59	67	72	72	55	75	80	69	72	59	84	69	66	66.2	
	Minimum	35	45	39	46	39	44	44	43	44	38	51	44	40	36	49	43	43	38	36	44	42	46	48	48	51	46	54	56	58	53	44.7		
Franklin	Maximum	77	71	64	66	66	75	78	77	94	61	76	66	60	70	60	53	46	53	59	62	74	74	64	78	81	74	76	63	86	75	66	68.7	
	Minimum	33	44	35	46	36	44	42	38	50	34	47	44	17	33	46	43	41	43	36	36	42	38	46	48	48	44	43	54	52	58	54	43.1	
Hanover	Maximum	73	67	55	64	67	74	74	72	63	58	71	62	66	67	56	50	46	54	60	62	73	71	64	79	78	68	73	62	84	72	63	66.1	
	Minimum	28	47	33	46	35	50	43	39	46	30	50	43	33	32	47	43	43	41	40	36	36	42	45	49	47	49	47	56	59	53	43.5		
Nashua	Maximum	72	72	68	69	69	72	70	72	70	60	76	74	70	68	51	50	52	55	60	70	70	72	66	74	82	76	70	58	84	72	70	68.3	
	Minimum	36	46	42	52	43	44	47	46	52	36	52	48	41	33	48	45	45	44	44	46	46	46	46	54	59	63	74	73	64	81	78	67	66.3
Plymouth	Maximum	73	60	63	64	66	73	74	73	60	72	61	65	68	56	50	45	54	59	63	74	73	64	81	78	67	74	64	84	85	70	66	66.3	
	Minimum	32	45	38	46	31	46	38	35	41	34	46	44	33	30	43	42	42	42	39	35	45	40	47	49	49	48	41	54	52	57	51	42.4	
Vermont.																																		
Burlington	Maximum	71	62	50	57	68	69	68	66	54	57	65	50	60	60	55	64	51	51	51	59	58	69	70	55	75	71	67	66	68	80	72	61	62.9
	Minimum	45	45	36	41	38	52	43	38	41	30	47	42	38	35	46	51	43	41	42	43	42	47	44	53	52	51	44	58	54	55	47	44.9	
Enosburg Falls	Maximum	63	60	48	49	62	62	62	64	64	54	65	55	57	53	57	57	57	46	53	56	67	67	67	75	75	60	59	64	75	75	58	60.6	
	Minimum	12	43	28	51	30	49	43	30	46	24	50	40	38	26	37	19	15	42	38	49	40	40	50	54	46	38	57	56	56	52	41.9		
Northfield	Maximum	71	64	52	59	64	69	70	64	56	57	58	50	59	61	53	50	49	51	56	58	69	70	56	70	72	63	69	63	79	70	58	62.4	
	Minimum	37	38	32	35	32	40	42	34	40	27	48	41	31	30	44	44	42	40	40	36	37	39	46	58	47	44	38	51	51	54	40	40.5	
St. Johnsbury	Maximum	71	69	58	58	65	73	72	72	61	63	71	68	61	65	61	54	53	53	54	63	73	74	71	80	78	66	75	73	84	79	66	67.3	
	Minimum	38	51	30	41	32	51	45	31	39	28	48	42	32	30	38	44	43	41	40	41	41	17	49	45	48	43	55	54	56	49	42	42.5	
Wells	Maximum	70	65	55	60	65	68	68	68	62	54	67	58	65	64	58	48	56	48	58	55	70	70	62	73	75	66	76	75	80	74	62	65.1	
	Minimum	50	55	35	42	58	50	48	38	46	34	52	38	38	34	38	43	48	42	38	38	38	45	50	48	50	48	45	46	56	55	48	4	



Scale of Shading.





Stations.	Watershed.	Day of month.																															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
<i>Rhode Island.</i>																																	
Block Island ***	Coast				.02	.06	.03	.02	.10							.44	.18	1.66						.02	.01			T.	.19	.20	.25	.02	
Bristol	do				.05	T.	.15	.05	*	.39						.67	*	1.65	T.		.11			T.	.02			T.	.08	.75	.04	.20	
Greene	do				.04		.10		.02	.22						.98	*	1.89			.02			.08						1.01	*	.12	
Hope Valley	do					.05		.04								.83	.45	1.55		T.									.69				
Kingston	do						.16	.03	.05							.67	.05	2.40			.03			.02	.03					.14	.02		
Narrag'sett Pier***	do				.01	.02	.15	.06	.01	.08						.70	.05	1.82			T.			.02				T.	.12	.21		.24	
Pawtucket	do				.06		.14	.01	.12							.21		2.72						.05				T.*	*.67			.40	
Providence**	do	T.	T.		.05	T.	.10	T.	.10							.01	.50	.07	2.02	T.		.12		.03	.02			T.	.01	.53	.22	.02	
Wallum Lake.	do				.23			.10	.12							.09	.10	1.60	.59			.10		.28					.70		.45		
<i>Connecticut.</i>																																	
Bridgeport	Coast				T.	.01	.07	.04	.07							.20	.22	1.44						.45				T.	.18	.25	.13		
Canton	Connecticut				.25		.08	.04	.16							T.	.55	.92	.26					.32				T.	.04	T.	.180	.15	
Colchester	Coast				T.	.08	T.	.10		.59						.90	.05	2.15				.02			.18			T.	.17	.20	.23	.34	
Cream Hill	Housatonic	T.	T.		.48	T.	.09	.12	T.							T.	.48	.05	.08	.02				.42				T.	.08	.42	.05		
Danielson	Coast				.05		.10	T.	.25							.10		2.10						.20				1.30		.50			
East Hartland					.58		.12	.03	.12								*	1.83	.02				.26					.08	.33	.09			
Falls Village	Housatonic				.30	.25	.12	.08	T.							.05	.25	.30	.56	.04			.05	.34				T.	.08	.42	T.		
Hartford **	Connecticut	T.			.04	.16	.09	.02	.09	T.						.03	.41	.21	.83	T.				.20				T.	.03	.29	.24		
Hawleyville	Housatonic							.02		1.25	.02					.03	.11	.08	2.39	.30				.08					.66	.3			

† Precipitation is less than 0.01 inch rain or melted snow. \* Precipitation indicated in that of following day.  
 ‡ Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.								
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of pos- sible sunshine.	Prevailing direc- tion.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of pos- sible sunshine.	Prevailing direc- tion.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	
1888....	53.6	88	18	4.49	.....	17	0	5	13	13	.....	ne.	8.8	36	e.	1903....	57.3	96	12	0.68	1.81	4	0	20	7	4	78	nw.	8.7	51	s.
1889....	59.2	93	25	3.57	.....	10	0	9	13	9	.....	sw.	8.6	50	ne.	1904....	58.8	91	20	3.52	2.64	10	0	15	8	8	65	sw.	9.2	46	w.
1890....	55.3	86	22	5.69	.....	15	0	8	11	12	.....	s.	13.3	60	ne.	1905....	54.6	85	22	1.82	1.33	10	T.	12	10	9	62	nw.	10.1	57	w.
1891....	53.9	92	22	2.18	.....	9	0	8	14	9	.....	sw.	9.3	55	sw.	1906....	55.1	96	21	4.96	3.50	11	0	12	9	10	59	sw.	9.7	60	s.
1892....	53.6	89	17	5.23	.....	15	T.	6	10	15	.....	sw.	10.8	53	e.	1907....	49.9	91	17	3.07	2.50	10	T.	9	10	12	46	nw.	10.0	50	nw.
1893....	54.9	98	25	5.32	.....	14	0	11	9	11	44	sw.	10.2	53	s.	1908....	57.2	92	21	4.70	3.16	11	T.	11	9	11	55	sw.	10.6	56	nw.
1894....	56.0	91	24	4.13	.....	11	0	10	9	12	52	sw.	10.2	54	w.	1909....	53.7	87	22	3.02	2.40	13	0	11	8	12	52	nw.	10.9	50	s.
1895....	57.2	100	21	2.52	.....	10	0	10	12	9	61	sw.	9.8	48	ne.	1910....	54.7	92	22	2.73	1.80	12	0	10	9	12	49	sw.	9.8	39	sw.
1896....	58.5	96	22	2.58	.....	14	0	10	13	8	56	sw.	10.6	57	w.	1911....	60.6	101	16	1.15	2.00	6	0	16	8	7	61	sw.	9.4	41	w.
1897....	55.6	85	17	4.80	.....	2.77	0	8	8	15	39	sw.	11.0	60	s.	1912....	56.1	88	22	5.09	2.98	13	0	11	8	12	52	sw.	10.5	50	s.
1898....	54.6	86	14	4.38	.....	2.87	0	8	10	13	48	ne.	9.6	72	se.	1913....	53.2	92	18	3.32	2.10	9	0	13	7	12	54	nw.	9.3	48	nw.
1899....	55.7	94	22	1.79	.....	2.20	0	14	7	10	60	sw.	9.7	50	ne.	1914....	56.5	99	21	2.15	2.64	6	T.	16	8	7	60	nw.	10.3	48	nw.
1900....	53.1	96	15	4.04	.....	4.54	T.	12	10	9	53	nw.	10.5	66	nw.	1915....	52.8	86	22	2.22	2.20	10	0	12	9	10	56	nw.	10.1	50	nw.
1901....	54.6	91	24	5.83	.....	3.20	0	10	8	13	42	ne.	10.3	55	e.	1916....	54.8	89	24	3.85	6.72	11	0	10	11	10	49	nw.	10.3	63	w.
1902....	54.1	92	19	2.63	.....	2.50	0	14	9	8	57	nw.	10.1	52	w.																



U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

JUNE, 1916

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BY  
JOHN W. SMITH  
METEOROLOGIST

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
JULY 21, 1916



# Departure of the Mean Temperature from the Normal, June, 1916.





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

VOL. XXVIII. BOSTON, MASS., JUNE, 1916.

No. 6.

## GENERAL SUMMARY.

The weather during June was unusually cool and wet for the season. The average temperature for the section,  $60.6^{\circ}$ , and so the highest recorded during the month,  $89^{\circ}$ , were the lowest for June since the beginning of the record in 1888, with the exception of 1903, when the average was  $59.5^{\circ}$ , and the maximum the same as the present month. The average precipitation was greater than that of any other June during the past 28 years, except in 1903, when it was 6.70 inches. At comparatively few stations was the total for the month less than four inches, and a considerable number of stations scattered through the district it was more than six inches. At many stations rain occurred early every day after the 2d of the month. Although very favorable for a heavy growth of grass, the conditions were unfavorable for planting and the growth of other crops, particularly corn. A large portion of the sweet corn acreage in Maine did not get planted, and that planted made a very slow and unsatisfactory growth. At the close of the month the season was about two weeks later than usual.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 14 stations reporting, was 29.95 inches, which was 0.07 inch below the normal for June, 1915, and also normal for the month. The highest monthly mean was 29.98 inches, at Portland, Me.; the lowest, 29.93 inches, at Burlington, Vt. The highest recorded was 30.32 inches, at Eastport, Me., on the 9th; the lowest, 29.55 inches, at the same station on the 20th. The monthly average for the section was 0.77 inch.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 14 stations, was  $60.6^{\circ}$ , which was  $1.9^{\circ}$  below the mean for June, 1915. During the past 28 years the average June temperature has been lower in one year than that of the present year. It was in 1903, when the mean for the month was  $59.5^{\circ}$ . The highest average June temperature during this period was  $65.4^{\circ}$ , in 1892. The average temperature for the several states in the section, was as follows: Maine,  $59.7^{\circ}$ ; New Hampshire,  $59.9^{\circ}$ ; Vermont,  $59.9^{\circ}$ ; Massachusetts,  $61.4^{\circ}$ ; Rhode Island,  $62.0^{\circ}$ ; Connecticut,  $62.0^{\circ}$ . The average temperature for the section was  $4.1^{\circ}$  below the normal. The departures from the normal for the several states were as follows: Maine,  $-2.9^{\circ}$ ; New Hampshire,  $-1.9^{\circ}$ ; Vermont,  $-4.2^{\circ}$ ; Massachusetts,  $-4.1^{\circ}$ ; Rhode Island,  $-4.6^{\circ}$ ; Connecticut,  $-4.3^{\circ}$ . The highest monthly mean was  $65.4^{\circ}$ , at Westboro, Mass.; the lowest,  $53.5^{\circ}$ , at Eastport, Me. The highest recorded was  $89^{\circ}$ , at Woodstock, N. H., on the 27th; the lowest,  $26^{\circ}$ , at Millinocket, Me., on the 2d. The greatest local monthly range was  $57^{\circ}$ , at Millinocket, Me., the least,  $27^{\circ}$ , at Block Island, R. I. The greatest daily range was  $48^{\circ}$ , at Millinocket, Me., on the 4th, and at Keene, N. H., on the 2d.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 14 stations reporting, was 70 per cent, which was 5 per cent above that of June, 1915, and 10 per cent above the normal for the month. The highest monthly average was 90 per cent, at Block Island, R. I.; the lowest, 74 per cent, at Fall River, Mass.

## PRECIPITATION.

The monthly average for the section, as shown by the records of 81 sta-

tions, was 2.91 inches, which was 5.02 inches above the average for June, 1915. During the past 28 years the average June precipitation has been greater in only one year than that of the present year, which was in 1903, when the average for the month was 6.70 inches. The smallest average June precipitation during this period was 0.93 inch, in 1912. The average precipitation for the several states was as follows: Maine, 4.40 inches; New Hampshire, 6.45; Vermont, 1.59; Massachusetts, 5.33; Rhode Island, 4.36; Connecticut, 5.04. The average precipitation for the section was 1.87 inches above the normal for the month. The departures from the normal for the several states, were as follows: Maine,  $+1.02$  inches; New Hampshire,  $+3.18$ ; Vermont,  $+1.12$ ; Massachusetts,  $+2.31$ ; Rhode Island,  $+1.58$ ; Connecticut,  $+2.10$ . The greatest monthly amount was 9.04 inches, at Franklin, N. H.; the least, 2.17 inches, at Presque Isle, Me. The greatest amount in 24 hours was 2.81 inches, at Rockport, Mass., on the 17th. The average number of days with .01 inch or more of precipitation was 16, which is 7 more than the normal number for the month.

## WIND.

The prevailing direction of the wind was from the northwest; the normal direction for the month is from the southwest, as determined from the records of the past 29 years. The average monthly wind movement for the section, 14 stations reporting, was 6,628 miles. The greatest monthly wind movement was 10,922 miles, at Blue Hill Observatory, Hyde Park, Mass.; the least, 3,226 miles, at Amherst, Mass. The average hourly velocity was 9.2 miles, which was 0.4 mile above the normal for the month. The highest recorded velocity was 57 miles per hour from the west, at Blue Hill Observatory, Hyde Park, Mass., on the 18th. This is somewhat greater than the usual maximum velocity for June.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 9; partly cloudy, 9; cloudy, 12, which compares with the normal for the month of 12 clear, 9 partly cloudy, and 9 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 47, which was 9 per cent below the average for June, 1915, and 13 per cent below the normal for the month, as determined from the records of the past 24 years. The greatest percentage of possible sunshine in any June during this period was 78, in 1908; the least, 46, in 1893 and 1903. The greatest percentage of possible sunshine was 61, at Boston, Mass.; the least, 34, at Amherst, Mass., and Northfield, Vt.

## DATES OF MISCELLANEOUS PHENOMENA.

*Killing frost.*—Millinocket, Me., 4.

*Halos, Solar.*—Boston, Mass., 13, 24; New Haven, Conn., 5.

*Auroras.*—Eastport, Me., 30; North Bridgton, Me., 29, 30; Blue Hill, Mass., 22; Leominster, Mass., 22, 30; New Haven, Conn., 22.

*Thunderstorms* (dates and number of observers reporting on each): Maine—5th, 7; 18th, 4; 19th, 1; 20th, 2; 27th, 4; 28th, 5; 29th, 2. New Hampshire—3d, 3; 5th, 8; 6th, 3; 10th, 1; 11th, 1; 12th, 3; 13th, 2; 17th, 1; 18th, 9; 27th, 3; 28th, 3. Vermont—5th, 7; 6th, 1; 11th, 1; 12th, 1; 13th, 4; 17th, 2; 18th, 8; 19th, 2; 27th, 7; 28th, 2; 29th, 1. Massachusetts—3d, 5; 4th, 1; 5th, 13; 6th, 7; 9th, 1; 11th, 6; 12th, 10; 13th, 5; 14th, 1; 17th, 5; 18th, 12; 19th, 2; 20th, 2; 21st, 1; 27th, 1; 28th, 7; 29th, 1. Rhode Island—3d, 1; 5th, 2; 6th, 1; 11th, 2; 13th, 1; 17th, 1; 18th, 3; 19th, 1; 28th, 1. Connecticut—3d, 3; 5th, 13; 7th, 1; 13th, 7; 17th, 3; 18th, 10; 19th, 7.



## Climatological Data for June, 1916.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.					Precipitation, in inches.				No. of days.				Observer.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.		Partly Cloudy.	Cloudy.
<b>Maine.</b>																			
Bar Harbor §.	Hancock	20	30																William Miller.
Cornish	York	778	61	60.8	-4.4	85	27	40	1	41	7.83	+4.16	1.98	0	16	4	13	13	T. H. West.
Eastport	Washington	53	44	53.5	-0.9	72	29	40	16	24	3.79	+0.55	1.07	0	14	3	10	17	U. S. Weather Bureau.
Fairfield	Somerset	90	31	61.2 <sup>b</sup>	-2.2	79 <sup>b</sup>	27	42	4	31 <sup>b</sup>	2.93	+0.43	0.73	0	11	10	14	7	E. F. Parker.
Farmington.	Franklin	460	19	60.1	-2.4	85	27	38	3	41	5.14	+1.72	1.07	0	19	6	8	16	State Normal School.
Gardiner §	Kennebec	163	24	60.4	-4.8	80	26	43	3 <sup>b</sup>	33	4.45	+1.32	1.39	0	17	10	5	15	Samuel D. Soule.
Greenville	Piscataquis	1,140	12	57.5		81	27	38	4	38	3.99	+0.30	0.58	0	16				U. S. Weather Bureau.
Houlton.	Aroostook	362	14	60.2		83	27	41	1	36	2.62	-0.67	0.84	0	7	11	12	6	Bangor & Aroostook RR.
Langtown.	Franklin			57.0		82	27	31	2	47	4.35		0.60	0	16	14	8	8	Langtown Co.
Lewiston.	Androscoggin	185	33	60.8	-3.6	82	27	46	10 <sup>b</sup>	29	4.65	+1.23	1.24	0	15	6	11	13	Union Water Power Co.
Madison §.	Somerset	257	13	60.6		83	28	42	3	39	5.14	+1.26	1.54	0	18	13	6	11	William Jardine.
Millinocket.	Penobscot	386	13	60.4		83	27	26	7	48	2.93	-0.28	0.55	0	15	10	12	8	Great Northern Paper Co.
North Bridgton.	Cumberland	450	23	60.0	-4.6	84	27	41	3	34	6.95	+3.52	1.43	0	18	4	15	11	C. L. Chadbourne.
Orono §.	Penobscot	129	47	61.2	-1.1	82	2	37	4	43	4.99	+1.65	0.86	0	16	18	4	8	Maine State College.
Patten	do	550	14	60.8 <sup>d</sup>		85 <sup>d</sup>	27	35 <sup>d</sup>	5	44	2.80	-1.45	1.00	0	6	9 <sup>d</sup>	0 <sup>d</sup>	17 <sup>d</sup>	Bangor & Aroostook RR.
Portland	Cumberland	99	45	58.2	-4.4	82	27	36	9 <sup>d</sup>	28	6.32	+2.96	2.27	0	16	8	9	13	U. S. Weather Bureau.
Presque Isle.	Aroostook	1,000	7	59.6		82	27	36	2	39	2.17	-0.80	0.49	0	11	10	15	5	E. M. Libby.
Rumford §.	Oxford	505	23	60.8	-2.8	83	27	44	2 <sup>b</sup>	32	6.97	+3.77	1.10	0	17	14	6	10	Charles A. Mixer.
Van Buren.	Aroostook	510	12	59.2		80	27	40	1 <sup>b</sup>	32	2.25	-1.71	0.55	0	11	7	2	21	Rev. J. M. Thomas.
Winslow	Kennebec	90	21	61.8	-0.9	84	27	40	3	39	3.35	-0.43	0.81	0	13	9	11	10	Hollingsworth & Whitney
<b>New Hampshire.</b>																			
Alstead Center.	Cheshire	1,120	12	58.9	-8.4	79	27	41	9 <sup>b</sup>	30	6.26	+3.21	1.10	0	20	7	9	14	Frank Dewing.
Bethlehem	Grafton	1,470	24	58.8	-4.7	82	27	38	1	36	6.32	+2.59	1.53	0	19	6	12	12	Benjamin Tucker.
Concord.	Merrimac	350	56	60.2	-4.2	83	27	42	2	36	6.26	+2.92	1.07	0	19	9	9	12	U. S. Weather Bureau.
Durham §.	Stafford	88	21	59.2	-5.1	85	27	40	3	34	6.79	+3.63	1.69	0	11	10	8	12	N. H. Agr. College.
Franklin	Merrimac	440	17	60.2	-3.1	85	27	40	2	41	9.04	+5.95	1.53	0	21	6	8	16	Dr. C. P. Webster.
Glencliff	Grafton	1,650	3											0	17	11	8	11	State Sanatorium.
Grafton	do	863	30	58.0	-4.2	83	27	34	2	41	4.63	+1.22	0.87	0	17	11	8	11	P. R. Kimball.
Hanover	do	603	82	60.2	-4.8	83	27	37	1 <sup>b</sup>	43	5.42	+2.02	1.38	0	18	4	7	19	Dartmouth College.
Keene §.	Cheshire	506	31	60.1	-4.8	84	27	34	2	48	5.70	+1.94	0.92	0	17	10	7	13	Samuel Wadsworth.
Nashua §.	Hillsboro	125	31	61.8	-4.5	84	27	43	1	36	7.57	+4.87	1.30	0	19	0	20	10	C. B. Stevens.
Newton	Rockingham	126	28	58.9	-5.6	82	27 <sup>b</sup>	39	2	35	7.30	+4.30	2.17	0	13	7	16	7	W. C. Gale.
Plymouth	Grafton	500	28	59.9	-4.3	84	26 <sup>b</sup>	35	2	44	6.02	+2.81	1.08	0	15	11	1	18	Mrs. Hattie G. Trow.
<b>Vermont.</b>																			
Bloomfield	Essex		9	59.0		82	27	33	1	44	5.62	+1.84	1.22	0	21	9	7	14	Lyman Falls Power Co.
Burlington	Chittenden	404	9	60.9	-2.9	79	27	40	1	32	4.32	+1.06	0.96	0	18	4	10	16	U. S. Weather Bureau.
Cavendish	Windsor	910	13	59.5		83	27	33	1	42	5.73	+2.27	0.90	0	18	4	12	14	Colonial Power Co.
Chelsea	Orange	840	21	60.2	-1.1	84	27	32	1	44	5.10	+1.95	0.97	0	15	5	4	21	W. F. Dewey.
Cornwall	Addison	517	23	62.2	-4.9	83	27	40	1	35	3.61	+0.16	0.78	0	16	8	12	10	C. H. Lane.
Enosburg Falls.	Franklin	601	25	58.1	-7.1	74	7 <sup>b</sup>	34	1	32	3.53	-0.68	0.68	0	19	9	13	8	J. W. Pomeroy.
Hyde Park	Lamoille	576	4	60.6 <sup>b</sup>		83 <sup>b</sup>	27	34 <sup>b</sup>	1	44 <sup>b</sup>	5.30		0.70	0	17	5 <sup>b</sup>	9 <sup>b</sup>	14 <sup>b</sup>	A. V. Wiswell.
Northfield	Washington	876	30	57.5	-5.2	83	27	34	1	41	4.47	+1.22	5.79	0	19	4	4	22	U. S. Weather Bureau.
Somerset	Windham	2,096	5	54.6		77	27	30	1	37	4.40		0.97	0	16	5	14	11	Power Construction Co.
St. Johnsbury.	Caledonia	711	23	62.4	-1.6	86	27	36	1	44	4.35	+1.00	0.73	0	20	7	16	7	Fairbanks Museum.
Vernon	Windham	310	1	60.8	-7.0	82	26	42	21	36	4.30	+1.00	0.81	0	14	8	10	12	Conn. River Power Co.
Wells	Rutland	750	25	60.6	-5.1	82	14	38	1	38	2.83	-0.51	0.39	0	17	4	14	12	E. R. Pember.
Woodstock	Windsor	700	24	62.5	-2.5	89	27	34	1 <sup>b</sup>	44	6.13	+2.97	0.91	0	19	6	12	12	John S. Eaton.
<b>Massachusetts.</b>																			
Amherst §.	Hampshire	222	27	61.2	-5.0	84	28	40	2	40	4.97	+1.74	1.16	0	12	5	9	16	Mass. Agr. College.
Blue Hill §.	Norfolk	640	32	58.8	-5.5	78	28	43	10	24	5.31	+2.35	1.91	0	20	6	8	16	Blue Hill Observatory.
Boston	Suffolk	124	46	62.6	-3.2	84	27	49	11	24	5.04	+2.01	1.51	0	12	8	11	11	U. S. Weather Bureau.
Chestnut Hill §.	do	124	36	62.2	-4.7	84	26	44	2	32	6.03	+2.91	2.04	0	15	18	0	12	Met. Water Board.
Clinton §.	Worcester	370	20	60.6		80	28	45	10	31	6.53	+4.53	2.06	0	11				Do.
Concord §.	Middlesex	139	26	6.04	-5.0	81	27	41	2	36	4.70	+1.73	1.24	0	15	7	12	11	Fred A. Tower.
Fall River	Bristol	200	50	63.0	-2.8	80	28	47	10	24	3.90	+1.39	1.34	0	16	6	16	8	C. V. S. Remington.
Fitchburg §.	Worcester	550	33	60.9	-5.7	83	27 <sup>b</sup>	43	2	35	6.53	+3.46	1.29	0	17	9	8	13	Dr. A. P. Mason.
Framingham §.	Middlesex	160	36	62.3	-4.8	84	27	39	16	36	4.65	+1.76		0	13				Met. Water Board.
Lawrence §.	Essex	51	32	61.2	-4.7	83	27 <sup>b</sup>	45	10	32	6.58	+3.50	1.60	0	10				Essex Company.
Lowell §.	Middlesex	100	31	62.0	-4.8	84	28 <sup>b</sup>	45	2	34	7.20	+3.98	2.01	0	10				Props. Locks & Canals.
Nantucket	Nantucket	47	30	59.6	-1.7	75	26 <sup>b</sup>	47	15	23	4.89	+2.48	1.93	0	16	9	11	10	U. S. Weather Bureau.
New Bedford	Bristol	88	104	62.6	-1.4	79	28 <sup>b</sup>	47	10	20	4.70	+1.62	1.33	0	19	17	4	9	City Engineer.
Plymouth	Plymouth	50	31	58.8	-1.7	78	27	44	1 <sup>b</sup>	27	5.17	+2.49	0.96	0	13	16	4	10	Miss L. B. Knapp.
Provincetown.	Barnstable	40	29	60.0	-3.3	80	26	45	11	20	4.50	+2.26	1.55	0	13	18	4	8	Gideon Bowley.
Rockport §.	Essex	25	14	58.9		76	29	47	9 <sup>b</sup>	19	7.08		2.81	0	15	11	6	13	U. S. C. G. Station.
Rutland §.	Worcester	1,160	14											0	15	10	7	13	State Sanatorium.
Springfield.	Hampden	199	6	63.6	-6.6	85	26 <sup>b</sup>	45	1	35	3.98	+0.29	1.07	0	15	10	7	13	U. S. Army.
Turners Falls §.	Franklin	200	30	62.0	-4.2	82	26	41	10 <sup>b</sup>	35	6.04	+2.96	1.53	0	13				Turners Falls Co.
Westboro	Worcester	298	42	65.4	-2.2	84	28	48	2	30	5.79	+2.80	1.85	0	13				Miss E. W. Newcomb.
Williamstown §.	Berkshire	711	35	61.0	-4.6	80	27	40	1	35	3.62	+0.19	0.56	0	13	5	9	16	Williams College.
Worcester	Worcester	518	24	63.8	-3.1	85	28	47	10	27	5.44	+2.32	1.22	0	14	6	12	12	G. W. Swan.
<b>Rhode Island.</b>																			
Block Island	Newport	26	36	59.5	-2.1	75	28	48	1 <sup>b</sup>	19	3.86	+0.49	1.10						



Daily Precipitation for June, 1916.																																	
		Day of month.																															
Stations.	Watershed.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Maine.																																	
Ashland	St. John				.31	.08	.20						.32	.02					.07	.34		.09		.08			.01	.51		1.05	.02	1	3.23
Bar Harbor	Coast																																
Cambridge	Kennebec																																
Cornish	Saco			.80		.06			.55	1.98	.78	.34	.29	.13		.03	T	1.25	.10	.45		.01				.70			.42	.04		7.84	
Danforth	Penobscot			.16		.25				.25	.60	.57						.29	.50		.50		.08						.90			1.04	
Eastport***	Coast		T	.11					T		.46	.12	.07					.37	.70	.07	.13		.01	.11	.01	.11	.57		.89	T		5.79	
Eustis	Kennebec			.35	.01	.81			.06	.25	.17	.08	.18	.35	.01		.02	.31	.78		.31		T	T		.09	.12	.32	.62	.20		3.14	
Fairfield	do					.35				.03	.73	.06	.07					.50	.57		.18					.08		.15	.01			2.93	
Farmington	do			.25	.15	.01			.10	.72	.42	.18	.45	.09		T		1.07	.27	.10	.14		T			.20	.52	.14	.24	.04	.05	4.45	
Gardiner	do			.36	.14	.08			.18	.34	.81	.08	.07	.13			1.39	.13	.04	.12						.04	.19		.01	.04		4.45	
Greenville**	do			.58	.07	.02			.05	.41	.47		.19	.14				.53	.44		.25		.01	T		.52		.22	.08	.01		3.99	
Houlton	St. John			.15																						.57		.22				2.62	
Howe Brook	Penobscot			.42		.18					.40							T		.28	.08	.07	.05	.05		.40	.91		.75	.06		2.77	
Lauretown	Kennebec		T	.55	.32	.60			T	.16	.05	.40	.15			.08	.42	.25		.30	T				.16	.05		.30	.50	.06		1.75	
Lewiston	Androscoggin			.32	.06	.01			.14	.68	.61	.03	.24	.47			T	1.24	.08	.25					.42	.06		T	.06			4.05	
Madison	Kennebec			.24	.02				.15	.73		.56	.06	.33				.06	1.54	.08	.17	.01			.73		.36	.11				5.11	
Millinocket	Penobscot			.19	.26	.01			.05	.11	.48	.03	.24					.55	.05	.16	.05		.02	.14	T	.48		.01	.02			2.96	
North Bridgton	Saco		T	.58	T				.23	.82	.91	.30	.43	.81	.02	.02	.01	1.43	.05	.09	.16	T			T	.26	.38		.20	.25		6.95	
Orono	Penobscot			.30		.25				.53	.11	.23	.03					.23	.86	.16	.24	.03			.12		.75		.20	.83	.12	1.99	
Pattux	do			.20									.80					.40	.20					T		1.00		.20				2.89	
Portland***	Coast			.02	.23	.17			.12	2.16	.33	.35	.10	.05	T		.14	1.64	.19	.12		.01				.68			.01			6.62	
Presque Isle	St. John				.15	.10	T				.38	.05						T	.30				.09	T		T	.43		.20	.35	.02	2.17	
Rumford	Androscoggin		.09	.31	.09	T			.50	1.05	.33	.02	.82	.27	T	T	.02	.79	1.10	.18	T					.69		.70	.07	.03		6.97	
Van Buren	St. John			.22	.09	.08					T	.38						T	.14		.18		.10	T		.55	.04	.08	.39	T		2.25	
Winslow	Kennebec			.33		.18	*	.03	.07	.81		.14	.06					.60		.30	.14				.62		.08	.07				3.25	
New Hampshire.																																	
Alstead Center	Connecticut			.53	.21	.43	.17	.10	1.10	.52	.12	.31	.12	.12			.12	.25	.68	.41	.48		.08			.34	.05		.12			6.26	
Bethlehem	do			.43	1.04	.28	.27		.02	.06	.58		.45	.09	.07			.09	.26	.25	.03	.49				.24		1.09	.44	.11		6.32	
Brookline	Merrimack			1.12		.61	.18		.54	.55	.81	.10	.40	.06	.01			1.07	.25	.08	.30		.12	T		.18						6.18	
Concord***	do			.94	.03	.26	.12		.09	.95	.99	.03	.11	.17			.01	.03	.91	.25	.52				.02	.78				.03		6.26	
Durham	do					1.29	.40		.07	1.10		1.25							1.69	.14	.17		.08			.20	.40					6.79	
Franklin	do			.27	.71	.09	.67		.09	1.28	1.50	.09	.58	.16			.05	.15	1.53	.32	.62	.06	.03	.01		.69	.12				.02	9.04	
Glencoff	do																																
Grafton	do			.51	.31	T	.30		.10	.60	.53	.07	.21	.11			.01	.23	.87	.15	.30		.05			.27				.01		4.04	
Hanover	Connecticut			.39		.22	T		.04	.84	.51	.04	.28	.21			.01	.24	.33	.08	.35	.15	.01		T	.23		1.38	.11	T		5.17	
Keene	do			.77	.08	.46			.04	.82	.58	.21	.28	.09				.11	.59	.44	.50	.02	.06			.63				.02		5.79	
Nashua	Merrimack			.33	1.24	.81	1.30		.06	.57	.75	.09	.11	.04			.02	T	1.20	.10	.23	.13	.02	.11		.46						5.57	
Newton	do			1.35		.40			.05	1.13	.63	.20	.09		.03		T	2.17	.40	.24	.13	.02				.52						7.49	
Plymouth	do			.47	.69	T	.04		.16	.66	.02	.01	.39	.20		T	.21	1.08	.59	.20	.24	T			T	.46		T	T	T		6.02	
Vermont.																																	
Bloomfield	Connecticut			.05	1.22	.26	.08		.01	.30	.23	.24	.72	.01		.03	.08	.14		.53	.52	.04				.07	.08	.33	.60	.08		5.62	
Burlington***	Champlain			.13	.40	.78			.01	.17	.22	.24	.31	T	.01		.26	.19	.23	.19		.02	T		.02	.17		.96		.01		4.32	
Cavendish	Connecticut			.66		.03	.54		.50	.35	.39	.52	.02	T	.02	.15	.60	.30	.44	.52		.07	T		.02	.27		.33				5.73	
Chelsea	do			.62		.39	.03		.03	.97	.50	.40	.44				.28	.38	.02	.08	.50				.18		.28					5.11	
Cornwall	Champlain			.25	.65	T	.05	T	.15	.18	.15	T	.78		T	.15	.30	.30	.05	.05	.25	T		.01	.24		.05					3.61	
Enosburg Falls	do			.03	.62	.11	.15		.03	.16	.30	.04		.14			.32	.03	.68	.03	.15		T	.02	.51		.15	.02	.04			3.53	
Hyde Park	do			.13	.70	.47	.31		.05	.51	.25	.21	.44	.58			.25	.05	.06		.42				.22		.40	.14	.16			5.30	
Northfield***	Champlain			.30	.42	.15			.05	.79	.36	.32	.30	.07			.22	.13	.06		.50	.01		.01	.11	.21		.61	.05	.01		4.47	
Somerset	Connecticut			.02	.97	.27			.13		.37	.27	.32	.41	.02	.08	.02	.06	.55	.30	.15	.78	.10			.43			.24			4.40	
St. Johnsbury	do			.18	.73	.29	.02	.09	T	.39	.27	.32	.41	.02	.08		.12	.17	T	.14	.56					.06	.04		.35	.03	.09	4.36	
Vernon	do			.81		.51			.22	.07	.25	T	.27	.03		.06	.65	.23	.06	.56						.52						4.30	
Wells	Champlain			.20	.26	.04	T		.04	T	.05	.27	.31	T	T		.21	.09	.06	.20	.24	.07	T		T	.39		.07	.25	.08		2.83	
Woodstock	Connecticut			.76			.06		*	*	1.57	*	.36	.03			*	.70	.46	*	.59	.03	.02			.28		.91	.27	.09		6.13	
Massachusetts.																																	
Amherst	Connecticut			.36		.60		.08	.07	.20	*	.40	.50				.30	1.16	T			.15			.65							4.97	
Ashland	Merrimack			.63	.16	.01			*	*	*	.97	.23				*	1.82		.47		.18		.01	.26							4	
Bakers Bridgett	do			.10	.23	.05			.20	.40	.44		.21	.04				1.42	T	.34			.09		.28		.03					4.74	
Bedford	do			.28	.63	.29	.22		.07	.48	.50	T	.31	T		.01	.02	1.42	.03	.35	.04		.11		.28		.35		.13			4.96	
Blue Hill	Coast			.14	.57	.02	.03		.07	.46	.43	.15	.08	.04		T	T	.01	1.91	.09	.44	.11	.20	.07	.41		.08		.10	T		5.11	
Boston***	do			.66		.11	T		.04	.86	.39	.03	.35	T	T	T																	

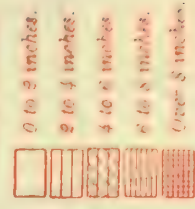


## Daily Temperatures for June, 1916.

Stations.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean.	
Maine.																																		
Cornish.....	Maximum	76	82	76	73	81	72	76	59	53	53	65	70	76	76	65	58	61	76	77	74	76	71	78	83	70	82	85	83	79	78	72.8		
.....	Minimum	40	41	40	48	42	51	49	52	46	42	49	52	51	54	48	44	50	56	50	54	45	44	48	50	56	57	51	63	50	46	48.9		
Eastport.....	Maximum	59	62	59	54	57	69	64	56	55	48	56	55	62	59	58	58	58	54	69	65	71	65	69	64	58	65	57	56	22	68	46.3		
.....	Minimum	44	46	42	46	43	45	42	46	43	40	44	45	49	46	41	40	44	46	45	46	52	51	52	49	46	47	47	48	51	53	46.7		
Farmington.....	Maximum	75	81	75	66	75	66	77	67	58	62	65	65	75	78	66	55	60	70	77	68	72	71	74	83	73	84	85	76	78	76	71.8		
.....	Minimum	40	40	38	46	41	48	43	55	45	43	48	48	53	53	51	42	49	55	50	53	48	51	51	50	45	55	50	60	49	46	48.4		
Greenville.....	Maximum	69	77	70	59	70	60	42	65	55	51	64	68	70	74	63	55	58	70	72	62	64	56	64	73	68	77	81	73	71	70	66.7		
.....	Minimum	45	39	41	38	42	48	42	54	47	41	48	53	51	51	50	39	48	54	54	53	50	46	49	50	53	54	50	59	50	50	48.3		
Millinocket.....	Maximum	74	81	79	74	74	67	75	72	58	55	65	67	71	75	71	65	63	21	74	69	69	63	68	72	72	75	74	80	81	80	78	76	72.9
.....	Minimum	44	37	40	26	48	50	45	55	47	44	50	55	56	45	53	44	51	57	57	55	52	50	48	52	56	52	60	56	54	54	49.7		
Orono.....	Maximum	74	82	76	63	73	74	75	77	63	57	67	71	71	76	75	69	94	67	76	75	72	72	72	75	74	80	81	80	78	76	72.9		
.....	Minimum	41	39	43	37	47	53	44	56	50	43	45	54	51	47	51	44	48	55	55	54	50	53	52	49	49	55	54	60	56	50	49.4		
Portland.....	Maximum	74	69	66	62	68	61	70	56	49	50	60	62	66	61	54	54	50	61	75	69	68	67	73	71	64	74	72	74	77	75	65.3		
.....	Minimum	46	52	48	47	52	51	51	48	44	44	50	48	53	50	44	46	50	52	53	53	50	51	53	56	55	57	56	60	69	55	51.2		
Presque Isle.....	Maximum	70	75	74	65	72	70	76	70	63	64	67	68	70	76	72	68	66	65	72	68	69	61	70	75	74	71	72	74	77	75	70.1		
.....	Minimum	40	36	46	41	48	50	45	52	49	47	47	55	56	45	47	45	51	52	55	56	57	45	51	49	53	55	56	60	46	51	49.2		
Rumford.....	Maximum	72	76	76	66	72	68	74	61	55	53	67	67	70	72	61	54	62	73	72	66	67	64	69	78	71	78	83	75	75	73	68.8		
.....	Minimum	45	44	44	50	48	52	52	58	50	47	52	58	55	55	47	45	53	58	52	57	56	56	58	58	57	55	63	56	50	50	52.9		
Van Buren.....	Maximum	68	78	72	64	70	69	77	69	65	66	62	63	72	76	72	70	68	70	72	64	68	61	67	77	75	73	80	60	57	48	69.0		
.....	Minimum	40	55	48	60	50	51	48	50	45	46	58	53	52	47	47	42	48	55	53	50	55	52	52	55	54	53	50	49	48	48	49.3		
New Hampshire.																																		
Alstead Center.....	Maximum	71	77	62	68	67	65	65	55	53	65	70	73	73	64	65	55	66	75	64	62	62	62	67	72	66	78	79	75	72	72	67.3		
.....	Minimum	48	47	53	50	49	49	51	46	41	47	53	57	53	51	55	48	55	58	48	48	41	43	46	45	51	53	57	68	53	49	50.5		
Bethlehem.....	Maximum	67	76	65	64	74	67	71	64	60	65	70	66	73	75	66	59	68	77	69	63	63	60	60	78	65	76	82	73	69	70	68.5		
.....	Minimum	38	40	52	48	44	49	47	44	49	42	47	54	50	48	45	50	54	54	51	51	48	47	47	45	55	55	52	59	46	45	49.0		
Concord.....	Maximum	74	78	69	71	74	68	69	59	50	50	62	72	76	71	69	61	68	76	72	65	69	66	71	77	67	81	83	81	75	76	69.7		
.....	Minimum	45	42	45	48	44	50	50	45	44	50	55	51	55	47	46	55	55	54	51	49	51	53	48	59	55	53	63	61	61	49	58.8		
Franklin.....	Maximum	73	81	68	73	75	69	72	51	51	53	64	72	79	71	64	68	65	75	69	66	71	67	70	81	67	82	85	81	76	77	70.5		
.....	Minimum	41	40	42	49	43	52	50	51	47	44	49	54	50	55	52	46	53	58	49	53	46	49	52	47	58	52	51	62	54	45	49.8		
Hanover.....	Maximum	72	80	66	70	75	71	71	63	58	59	67	74	77	77	63	57	65	75	68	63	65	65	70	78	68	82	82	77	74	73	70.3		
.....	Minimum	37	37	52	50	41	52	51	55	48	46	50	56	51	54	53	47	55	56	47	52	45	50	51	44	61	55	60	62	49	46	50.2		
Nashua.....	Maximum	77	84	72	75	76	79	68	62	54	48	59	72	74	70	66	69	66	85	72	68	74	68	74	80	68	82	84	82	78	77	71.2		
.....	Minimum	43	44	47	50	50	50	48	54	48	46	48	54	52	51	54	50	56	61	52	56	48	50	54	50	60	58	58	66	58	50	52.4		
Plymouth.....	Maximum	74	79	64	64	70	70	72	60	56	64	68	72	74	75	62	56	61	73	70	63	67	64	69	77	64	84	84	80	74	74	69.5		
.....	Minimum	46	35	41	40	42	50	53	55	49	45	50	56	49	56	52	46	53	59	46	54	51	52	52	45	59	53	51	63	51	46	50.3		
Vermont.																																		
Burlington.....	Maximum	68	77	67	67	72	63	73	69	59	65	69	67	75	75	66	59	74	76	65	61	62	62	65	74	66	77	79	71	73	74	69.0		
.....	Minimum	40	45	55	58	52	54	48	58	44	46	59	55	54	54	56	53	59	57	55	55	51	53	51	52	51	61	65	65	68	44	52.9		
Enosburg Falls.....	Maximum	66	73	73	61	61	63	74	64	61	58	64	64	64	64	74	60	70	67	60	62	61	57	62	62	66	63	65	63	67	60	65.6		
.....	Minimum	34	42	55	52	50	51	46	56	50	47	40	54	49	48	52	49	51	51	55	56	49	49	50	43	61	57	52	60	46	40	50.6		
Northfield.....	Maximum	67	76	58	65	72	65	71	67	55	58	60	67	72	73	60	57	67	74	67	74	67	70	61	60	62	74	63	26	83	70	71	66.9	
.....	Minimum	34	35	51	48	44	49	48	52	48	45	47	47	52	48	47	52	50	51	52	51	51	49	52	55	47	60	50	46	42	44	48.1		
St. Johnsbury.....	Maximum	72	81	76	68	74	70	78	74	67	66	72	75	78	80	67	72	74	76	64	66	64	66	81	76	81	86	76	74	74	74	78.4		
.....	Minimum	36	37	52	51	42	51	50	56	54	47	50	57	62	52	51	51	55	62	54	53	53	51	57	47	61	56	52	61	44	44	51.4		
Wells.....	Maximum	70	80	70	70	72	62	70	68	62	66	68	78	82	70	60	80	80	80	72	72	62	66	68	76	66	74	80	70	74	70	70.7		
.....	Minimum	38	42	55	50	52	52	50	52	46	46	46	54	50	51	52	54	58	56	53	50	42	43	50	46	57	52	57	58	45	45	50.5		
Massachusetts.																																		
Amherst.....	Maximum	76	80	67	72	73	76	67	60	54	54	60	74	78	74	63	65	69	77	68	65	62	62	68	76	78	64	82	82	84				



Scale of Shales.





Daily Precipitation for June, 1916—Continued from page 45.

Stations.	Watershed.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
<i>Rhode Island.</i>																																	
Block Island***	Coast			.21		.03		.51	.38	.02	.03	.16	.07					1.10		.03		.14				.65		T.					3.36
Bristol	do			.27		.04	T.					.59	.33	.08			*	1.37	T.		.24				.55		.69	.01					3.62
Greene	do			.54	.11					.46	.06	.48	.21	.11			.02	2.21	.09	.17		.28			.55								5.32
Hope Valley	do			.03	.42		.12	.02	.28	.05	.16	.10	.23				.03	T.	2.00	T.		.15	.29			1.29							5.25
Kingston	do			.78		.78		.11	.70	.12	.15	.18	.06	.28			.03	1.88			.44				.86								5.77
Narragansett Pier***	do			.39	.25	.02	.08	.05	.33	.14	.21	.16	.11	.10				1.48	.05	.05	*	.24	.18			.77	.19	T.	.02				4.73
Pawtucket	do			.56		.06	T.	T.	T.	T.	.74	.14	T.	T.	T.		*	2.26	.02	*		.15			*	.46		T.	.04				4.70
Providence***	do			.34		.04	.04	.10	.19	.12	.10	.08	.06	T.			T.	.02	2.27	.01	.13	T.	.15			.54		T.	.01				4.20
Wallum Lake	do			.80		.38			.49	.15	.60		.18	.28				1.90	.10	.75		.20			.32								6.15
<i>Connecticut.</i>																																	
Bridgeport	Coast			.15	.02	.05	T.	.73	.16	.06	.12	.13		.09			T.	.02	1.17	.02	.50	.21	.50			.47		.01					4.41
Canton	Connecticut			.09		.84		.27	.23	.04	.96	.32		.15				.21	2.11	.37	.38		.16			.40							6.53
Colechester	Coast			.03	.10	.23		.11	.28	.09	.25	.03	.09	.02				T.	1.90	.18	.39	.17	.13	.09		T.	.56						4.65
Cream Hill	Housatonic.			.42		.75		.25	.20	.02	.01	.12		.05				.10	.58	.20	.35	.33				.52							3.90
Danielson	Coast			.95		.15					*	*	.75		.35		.05		2.50	.35	.20		.40			.42							6.12
East Hartland	do			.14		.18		.30	.62		.70	.24		.04				1.31	.06	.15	.23	.15			.58								4.70
Falls Village	Housatonic.			.62		.66		.30	.11	.14				T.				.10	.47	.50	.13	.20			.64								3.87
Hartford**	Connecticut			.06		.32	T.	.20	.26	.13	.03	.45	.02	.09	T.			.05	1.22	.11	.41	.01	.16	T.	T.	.34		T.					3.86
Hartfordville	Housatonic.																		1.00	1.05		.50		.42									5.63
Lake Konomocott	Coast				.25		.45		.35	.30	.13		.08					.01	.01	1.25	.24	.46		.67		T.	.44		.01				4.90
New Haven***	do			.12		.14		.52	.20	.03	.55	.12		.10					1.14		.41		.13			T.	*	.91					4.28
New London	do			.07		.10		.25	.15	.37	.03	.62		.10					2.57	.11	.44	.17	.25			.24	.04						6.60
N. Grosvenor Dale	do			.79		.33		*	.14	.26	.76	.30	.16	.04				.06	11.2	.09	.96		.46			.55							5.79
Norwalk	do			.08				*	1.23		.15			.10					15.1	.20	.40	.40	.45	.20	.10	.50	.05						4.90
Southington	do			T.		.15	T.	.10	.30	.15	.35	.40	T.	T.					1.50	.09	.31	.67	.67			.47							4.48
Storrs	Coast			.38		.31			.16	.12	.18	.10																					
Torrington	Housatonic.							*	*	*	*	*	.93	.10					2.00			.25	*	.42		*	.62						5.13
Volumtown	Coast			*	.68		.13	*	*	*	*	*		.93	.10							.25	*	.42									
Wallingford	do																	.06	1.15	.22	.89		.23			.40							5.01
Waterbury	Housatonic.			.04		.21		*	.56	.04	.45	.11		.02																			

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

T. Precipitation is less than 0.01 inch rain or melted snow. \* Precipitation indicated in that of following day.  
 † Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomocott, New London Water Works, New London, Conn.

Comparative Data for New England for June.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.									
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	
1888	64.4	101	27	2.80		10	0	9	16	5		sw.	8.4	48	sw.	1903	59.5	89	21	6.70	5.15	13	0	13	8	16	46	se.	8.3	72	e.	
1889	65.4	98	28	3.70		11	0	8	12	11		sw.	8.6	42	sw.	1904	63.1	98	30	3.06	6.15	9	0	13	8	6	46	sw.	7.9	42	nw.	
1890	63.0	94	26	3.04		10	0	9	12	9		nw.	8.8	60	ne.	1905	62.3	95	26	4.54	3.74	12	0	10	9	11	57	sw.	8.0	47	nw.	
1891	63.8	99	27	3.16		9	0	9	11	10		w.	8.9	46	n.	1906	64.2	98	29	4.13	3.03	11	0	12	9	9	58	sw.	8.2	55	nw.	
1892	68.1	98	30	3.92	2.86	13	0	8	9	13		sw.	9.7	46	ne.	1907	62.2	101	30	3.60	5.51	10	0	12	9	9	56	sw.	8.3	53	ne.	
1893	65.2	99	34	2.72	3.34	10	0	8	10	12	46	sw.	8.3	46	ne.	1908	65.7	96	24	1.75	2.14	5	0	20	7	3	78	sw.	8.9	44	w.	
1894	66.1	98	29	1.52	2.30	9	0	8	12	10	56	sw.	9.7	37	w.	1909	64.9	100	20	2.58	2.19	8	0	15	10	5	63	sw.	9.4	48	ne.	
1895	67.2	99	33	2.81	2.93	9	0	11	8	11	58	s.	8.1	38	e.	1910	62.5	92	27	3.67	2.30	11	0	12	8	10	55	nw.	8.9	46	w.	
1896	63.3	96	32	2.73	2.50	9	0	10	11	9	57	sw.	9.9	64	e.	1911	63.1	92	32	2.94	2.44	10	0	18	8	4	73	nw.	10.6	46	n.	
1897	60.7	92	30	1.62	4.42	10	0	10	9	11	48	nw.	10.4	32	ne.	1912	63.0	97	27	0.93	1.42	6	0	18	8	4	73	sw.	10.1	46	nw.	
1898	64.5	93	31	2.69	3.27	10	0	11	10	9	50	w.	9.5	50	w.	1913	63.5	95	27	1.28	1.89	5	0	14	9	7	60	nw.	9.8	52	nw.	
1899	65.4	99	30	2.88	3.50	8	0	13	12	5	62	nw.	9.5	47	sw.	1914	62.7	97	24	2.32	2.24	8	0	12	11	7	56	s.	8.8	49	ne.	
1900	65.7	105	32	2.74	2.72	8	0	15	9	6	68	sw.	9.6	54	w.	1915	62.5	94	28	2.08	4.19	9	0	9	9	12	47	nw.	9.2	57	w.	
1901	65.9	101	30	1.96	3.30	14	0	12	9	9	55	sw.	8.7	48	e.	1916	60.6	89	26	5.02	2.81	16	0	9	9							
1902	61.3	94	20	1.00											n.																	



U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

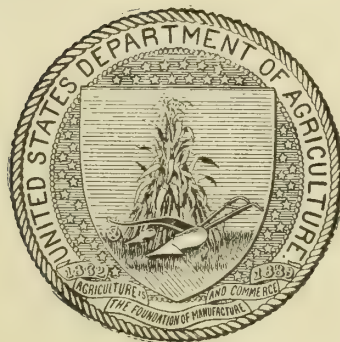
NEW ENGLAND SECTION

JULY, 1916

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BY  
JOHN W. SMITH  
METEOROLOGIST

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
AUGUST 18, 1916



Departure of the Mean Temperature from the Normal, July, 1916.



Shaded portions show excess (+).  
Unshaded portions show deficiency (-).  
Lines show amount of excess or deficiency.



## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

Vol. XXVIII. BOSTON, MASS., JULY, 1916. No. 7.

## GENERAL SUMMARY.

For the section as a whole, the month was warmer than usual, with rainfall above the normal. The average temperature was below the normal in the extreme southeastern portion of the section; elsewhere, however, it was above the normal, reaching the greatest excess in the northwestern portion. The rainfall was near the normal in the northern portion, being somewhat above in Maine and New Hampshire, and below in Vermont. In the southern portion it was much above the normal, the average excess in Rhode Island being 6.06 inches. At a number of stations in the southern states more than ten inches fell during the month. There was an unusual amount of cloudy weather. The average amount of sunshine received was one of the lowest of record, particularly in the southern states where the deficiency varied from 20 to 30 per cent below the normal. The total average rainfall for the section for the months of May, June and July of the present year, has been 14.00 inches, which has been exceeded but twice since the beginning of the record in 1888. This was in 1889, when the average for these months was 14.88 inches, and in 1897, when it was 15.39 inches.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 14 stations reporting, was 29.99 inches, which was 0.04 inch above the normal for the month, and 0.07 above the mean for July, 1915. The highest monthly mean was 30.03 inches, at Fall River, Mass.; the lowest, 29.97 inches, at Eastport, Me. The highest recorded was 30.39 inches, at Portland, Me., on the 15th; the lowest, 29.37 inches, at Block Island, R. I., on the 21st. The monthly range for the section was 1.02 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 31 stations, was 70.5°, which was 2.7° above the mean for July, 1915, and the highest average temperature for the month since 1911. During the past 28 years the average July temperature has been higher in 6 years and lower in 21 years than that of the present month, and the same in 1 year. The highest average July temperature during this period was 72.6°, in 1911; the lowest, 66.0°, in 1891. The average temperature for the several states of the section was as follows: Maine, 68.9°; New Hampshire, 70.9°; Vermont, 71.0°; Massachusetts, 71.0°; Rhode Island, 67.9°; Connecticut, 72.0°. The average temperature for the section was 1.4° above the normal. The departures from the normal for the several states were as follows: Maine, +1.5°; New Hampshire, +2.1°; Vermont, +3.2°; Massachusetts, +0.9°; Rhode Island, -2.1°; Connecticut, +1.6°. The highest monthly mean was 75.2°, at Westboro, Mass.; the lowest, 58.8°, at Eastport, Me. The highest recorded was 84°, at Woodstock, Vt., on the 21st and 25th; the lowest, 37°, at Langtown, Me., on the 6th. The greatest local monthly range was 61°, at Woodstock, Vt.; the least, 24°, at Block Island, R. I. The greatest daily range was 48°, at Patten, Me., on the 19th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 14 stations reporting, was 84 per cent, which was 3 per cent above the average for July, 1915, and 6 per cent above the normal for the month. The highest monthly average was 93 per cent, at Nantucket, Mass.; the lowest, 78 per cent, at Fall River, Mass.

## PRECIPITATION.

The average for the section, as shown by the records of 81 stations, was 5.13 inches, which was 2.36 inches below the average for July, 1915. During the past 28 years the average July precipitation has been greater in 3 and less in 25 years than that of the present year. The greatest July precipitation during this period was 7.61 inches, in 1889; the least, 2.19 inches, in 1909. The average precipitation for the several states was as follows: Maine, 4.23 inches; New Hampshire, 4.33; Vermont, 3.27; Massachusetts, 6.11; Rhode Island, 9.32; Connecticut, 5.91. The average precipitation for the section was 1.53 inches above the normal for the month. The departures from the normal for the several states were as follows: Maine, +0.67 inches; New Hampshire, +0.78; Vermont, -0.65; Massachusetts, +2.63; Rhode Island, +6.06; Connecticut, +1.92. The greatest monthly amount was 11.75 inches, at Kingston, R. I.; the least, 1.67 inches, at Burlington, Vt. The greatest amount in 24 hours was 4.50 inches, at Storrs, Conn., on the 25th. The average number of days with .01 inch or more of precipitation was 13, which was 4 more than the normal number for the month.

## WIND.

The prevailing direction of the wind was from the southwest, which is the normal direction for July, as determined from the records of the past 29 years. The average monthly wind movement for the section, 14 stations reporting, was 6,673 miles. The greatest monthly wind movement was 12,170 miles, at Nantucket, Mass.; the least, 2,984 miles, at Concord, N. H. The average hourly velocity was 9.0 miles, which was 1.2 miles above the average for July, 1915, and 0.7 mile above the normal for the month. The highest recorded velocity was 50 miles per hour from the southwest, at Nantucket, Mass., on the 21st. This is about the usual maximum velocity for July.

## SUNSHINE AND CLOUDINESS

The average number of clear days for the section was 11; partly cloudy, 9; cloudy, 11, which compares with the normal for the month of 12 clear, 10 partly cloudy, and 9 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 46, which was 6 per cent below the average for July, 1915, and 17 per cent below the normal for the month, as determined from the records of the past 23 years. It was also the smallest amount of sunshine for any July since the beginning of the automatic record in 1894, except in 1897, when it was the same as that of the present year. The greatest percentage of possible sunshine in any July during this period was 68, in 1894 and 1904. The greatest percentage of possible sunshine was 59, at Burlington, Vt.; the least, 35, at New Haven, Conn.

## DATES OF MISCELLANEOUS PHENOMENA.

*Halos, Solar.*—Boston, Mass., 10, 31.

*Auroras.*—North Bridgton, Me., 5, 6; Hartford, Conn., 1; New Haven, Conn., 1, 5, 6.

*Thunderstorms* (dates and number of observers reporting on each): Maine—2d, 5; 3d, 6; 7th, 2; 8th, 6; 11th, 2; 12th, 1; 13th, 7; 16th, 4; 17th, 2; 21st, 1; 22d, 4; 23d, 1; 24th, 1; 26th, 4; 30th, 3; 31st, 2. New Hampshire—2d, 8; 3d, 9; 8th, 8; 9th, 3; 12th, 4; 13th, 8; 17th, 1; 21st, 3; 22d, 6; 23d, 3; 27th, 7; 31st, 3. Vermont—2d, 5; 3d, 4; 7th, 4; 8th, 8; 10th, 2; 12th, 5; 13th, 6; 14th, 1; 16th, 1; 17th, 3; 21st, 30; 22d, 5; 23d, 3; 24th, 1; 26th, 1; 27th, 1; 30th, 1; 31st, 5. Massachusetts—2d, 12; 3d, 19; 4th, 2; 8th, 18; 9th, 13; 10th, 6; 11th, 1; 12th, 3; 13th, 23; 14th, 1; 17th, 1; 20th, 1; 21st, 2; 22d, 9; 23d, 1; 24th, 1; 27th, 8; 31st, 14. Rhode Island—2d, 2; 3d, 7; 4th, 1; 8th, 1; 9th, 5; 10th, 2; 11th, 1; 13th, 8; 23d, 1; 27th, 5; 28th, 2. Connecticut—2d, 5; 3d, 11; 8th, 4; 9th, 10; 10th, 1; 11th, 3; 12th, 4; 13th, 12; 17th, 1; 21st, 2; 27th, 9; 28th, 1.



## Climatological Data for July, 1916.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.					Precipitation, in inches.				No. of days.				Observer.			
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.		Partly Cloudy.	Cloudy.	Prevailing direction of wind.
Maine.																				
Bar Harbor	Hancock	20	30	72.0	+3.0	96	12	48	6	38	4.53	+0.57	1.38	0	11	9	10	12	n.	William Miller.
Cornish	York	778	61	58.8	-1.0	86	12	47	8	38	4.87	+1.45	1.76	0	11	4	12	15	s.	T. H. West.
Eastport	Washington	53	44	58.8	-1.0	86	12	47	8	38	4.87	+1.45	1.76	0	11	4	12	15	s.	U. S. Weather Bureau.
Fairfield	Somerset	90	31	69.8	+1.9	91	12	49	6	29	1.75	-1.29	0.75	0	8	21	5	5	.....	T. W. Harper.
Farmington	Franklin	450	19	70.0	+2.6	94	20	47	29	38	3.95	+0.43	0.90	0	15	10	14	7	sw.	State Normal School.
Gardiner	Kennebec	163	24	70.3	-0.5	94	12	49	6	32	3.30	+0.06	1.45	0	13	10	8	13	s.	Samuel D. Soule.
Greenville	Piscataquis	1,140	12	67.4	.....	92	20	43	21	37	5.60	+1.36	1.50	0	12	.....	.....	.....	.....	U. S. Weather Bureau.
Houlton	Aroostook	362	14	68.4	.....	95	20	38	9	39	4.32	+1.78	1.60	0	8	12	15	4	w.	Bangor & Aroostook RR.
Langtown	Franklin	.....	.....	66.2	.....	92	20	37	6	47	3.23	.....	0.98	0	10	23	3	5	w.	Langtown Co.
Lewiston	Androscoggin	185	33	70.6	+1.1	92	12	53	6	29	3.35	-0.20	0.75	0	11	9	11	11	s.	Union Water Power Co.
Madison	Somerset	257	13	69.6	.....	94	21	50	11	36	3.28	-0.79	0.77	0	8	20	4	7	s.	William Jardine.
Millinocket	Penobscot	386	13	69.2	.....	93	20	44	61	39	5.68	+2.06	1.36	0	12	16	5	10	s.	Great Northern Paper Co.
North Bridgton	Cumberland	450	23	71.9	+2.4	97	12	50	11	37	3.58	-0.49	1.30	0	13	5	18	8	e.	C. L. Chadbourne.
Orono	Penobscot	129	47	69.4	+2.1	94	12	47	6	36	4.39	+1.14	0.80	0	11	19	3	9	sw.	Maine State College.
Patten	do.	554	14	70.4	.....	98	20	39	15	48	6.20	+2.39	2.00	0	6	19	0	7	sw.	Bangor & Aroostook RR.
Portland	Cumberland	99	45	67.9	-0.1	94	12	54	5	26	3.82	-0.57	0.95	0	14	8	7	16	s.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	7	68.0	.....	96	20	38	10	45	3.68	-0.93	1.50	0	7	17	13	1	s.	E. M. Libby.
Rumford	Oxford	505	23	71.0	+2.7	92	12	51	28	30	3.76	-0.05	0.91	0	15	16	9	6	n.	Charles A. Mixer.
Van Buren	Aroostook	510	12	67.6	.....	95	20	39	10	46	7.34	+3.79	2.40	0	10	10	0	21	s.	Rev. J. M. Thomas.
Winslow	Kennebec	90	21	71.1	+2.6	94	12	46	6	38	3.69	+0.14	0.14	0	10	16	7	8	sw.	Hollingsworth & Whitney.
New Hampshire.																				
Alstead Center	Cheshire	1,120	12	71.4	-0.3	88	12	52	1	28	4.13	-0.15	1.00	0	14	15	5	11	sw.	Frank Dewing.
Bethlehem	Grafton	1,470	24	69.2	+2.1	90	12	47	6	33	6.02	+2.28	2.33	0	12	20	4	7	sw.	Benjamin Tucker.
Concord	Merrimac	350	56	71.6	+2.5	94	12	49	1	36	4.55	+0.76	1.47	0	12	10	10	11	s.	U. S. Weather Bureau.
Durham	Stafford	88	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	N. H. Agr. College.
Franklin	Merrimac	440	17	72.4	+2.5	94	12	50	1	35	4.23	+1.04	1.77	0	14	12	10	9	w.	Dr. C. P. Webster.
Glencoff	Grafton	1,650	3	67.8	.....	89	20	47	1	29	3.67	.....	1.40	0	11	12	12	7	nw.	State Sanatorium.
Grafton	do.	863	30	69.3	+1.5	92	12	44	1	40	3.74	+0.20	1.52	0	11	16	7	8	w.	P. R. Kimball.
Hanover	do.	603	82	72.0	+2.8	93	12	47	6	38	5.54	+0.06	1.31	0	11	2	19	10	sw.	Dartmouth College.
Keene	Cheshire	506	31	71.6	+3.3	92	12	42	1	41	4.48	+1.24	1.62	0	12	11	11	9	se.	Samuel Wadsworth.
Nashua	Hillsboro	125	31	73.0	+2.3	97	12	50	6	39	3.20	-0.25	0.96	0	11	1	21	9	.....	C. B. Stevens.
Newton	Rockingham	126	28	69.6	+0.4	92	12	44	29	37	3.76	+0.42	0.78	0	11	7	17	7	sw.	W. C. Gale.
Plymouth	Grafton	500	25	71.8	+4.2	94	19	46	1	40	6.22	+2.58	2.72	0	9	16	5	10	w.	Mrs. Hattie G. Trow.
Vermont.																				
Bloomfield	Essex	.....	9	68.5	.....	90	20	42	1	42	5.29	+1.07	1.53	0	14	15	8	8	s.	Lyman Falls Power Co.
Burlington	Chittenden	404	9	74.1	+3.2	91	12	53	6	30	1.67	-2.11	0.59	0	13	11	8	12	s.	U. S. Weather Bureau.
Cavendish	Windson	910	13	71.6	.....	95	12	49	1	38	2.79	-0.87	0.77	0	14	6	22	3	.....	Colonial Power Co.
Chelsea	Orange	840	21	71.0	+3.8	91	12	45	5	35	2.39	+0.01	0.63	0	10	11	10	10	n.	W. F. Dewey.
Cornwall	Addison	517	23	73.1	+2.2	94	12	45	9	29	2.17	-1.52	0.65	0	9	15	11	5	s.	C. H. Lane.
Enosburg Falls	Franklin	601	25	71.0	+3.4	93	24	47	28	38	4.48	-0.25	1.96	0	11	19	9	3	s.	J. W. Pomeroy.
Hyde Park	Lamoille	576	4	71.1	.....	94	19	42	4	39	2.61	.....	0.59	0	11	13	12	5	w.	A. V. Wiswell.
Northfield	Washington	876	30	68.8	+2.2	90	12	41	6	38	4.02	+0.32	1.96	0	12	5	13	13	s.	U. S. Weather Bureau.
Somerset	Windham	2,096	5	66.1	.....	87	19	40	5	35	4.46	.....	1.03	0	11	7	19	5	nw.	Power Construction Co.
St. Johnsbury	Caledonia	711	23	72.6	+4.5	94	12	47	6	40	2.02	-2.07	0.64	0	11	19	6	6	s.	Fairbanks Museum.
Vernon	Windham	310	1	73.4	+2.1	94	12	47	1	36	4.07	-0.43	1.40	0	11	7	12	12	se.	Conant River Power Co.
Wells	Rutland	750	25	70.3	+1.3	87	12	50	1	30	3.84	-0.06	1.62	0	12	7	16	9	s.	E. R. Pember.
Woodstock	Windson	700	24	74.6	+6.3	104	21	43	1	47	2.66	-1.24	1.15	0	12	9	15	7	.....	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	27	72.6	+2.1	94	31	46	1	40	6.85	-2.65	1.32	0	16	6	13	12	s.	Mass. Agr. College.
Blue Hill	Norfolk	640	32	69.2	0.0	88	st	51	5	28	7.55	+3.53	1.74	0	19	8	6	17	s.	Blue Hill Observatory.
Boston	Suffolk	124	46	72.5	+1.3	93	31	56	5	29	5.67	+2.31	2.03	0	16	7	7	17	sw.	U. S. Weather Bureau.
Chestnut Hill	do.	124	36	72.8	+1.2	94	31	51	6	38	5.19	+1.68	0.71	0	18	18	13	0	.....	Met. Water Board.
Clinton	Worcester	370	20	71.0	.....	87	31	51	29	23	5.41	+2.35	1.85	0	11	.....	.....	.....	.....	Do.
Concord	Middlesex	132	26	70.7	+0.8	91	31	48	1	33	3.74	+0.57	0.73	0	13	8	10	13	sw.	Fred A. Tower.
Fall River	Bristol	200	50	70.9	+0.2	87	st	53	29	22	11.47	+8.43	4.05	0	18	4	16	16	sw.	C. V. S. R. Mington.
Fitchburg	Worcester	500	33	72.0	+1.5	90	12	52	15	29	4.77	+1.02	0.96	0	13	9	7	15	w.	Dr. A. P. Mason.
Framingham	Middlesex	160	36	73.0	+1.7	91	12	50	29	33	5.11	+1.69	1.01	0	14	.....	.....	.....	.....	Met. Water Board.
Lawrence	Essex	51	32	72.4	-0.2	93	31	52	61	34	4.18	+0.54	1.18	0	14	8	15	8	s.	Essex Company.
Lowell	Middlesex	100	31	73.0	+1.5	91	31	52	61	30	6.17	+2.88	2.03	0	11	.....	.....	.....	.....	Props. Locks & Canals.
Nantuxet	Nantuxet	47	30	65.4	-2.1	82	31	53	7	19	5.02	+2.31	1.79	0	16	4	10	17	sw.	U. S. Weather Bureau.
New Bedford	Bristol	88	104	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	City Engineer.
Plymouth	Plymouth	50	31	72.4	.....	90	31	51	61	28	9.00	+5.90	4.13	0	15	13	4	14	w.	Miss L. B. Knapp.
Provincetown	Barnstable	40	29	66.9	-2.8	86	23	50	30	23	8.65	+6.22	2.99	0	12	7	10	14	sw.	Gideon Bowley.
Rockport	Essex	25	14	67.4	.....	91	31	51	29	31	4.22	.....	0.83	0	15	14	9	8	sw.	U. S. C. G. Station.
Rutland	Worcester	1,160	14	69.8	.....	89	20	47	14	29	8.66	.....	1.89	0	17	19	7	11	sw.	State Sanatorium.
Springfield	Hampden	199	6	73.7	+0.5	94	31	52	1	34	4.88	-0.10	1.02	0	16	5	9	17	se.	U. S. Army.
Turners Falls	Franklin	200	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Turners Falls Co.
Westboro	Worcester	298	42	75.2	+3.1	95	12	51	29	25	5.11	+1.81	1.02	0	15	.....	.....	.....	.....	Miss E. W. Newcomb.
Williamstown	Berkshire	711	35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Williams College.
Worcester	Worcester	518	24																	



## Day of month.

Continued on page 56.

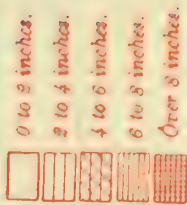


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Maine.																																			
Cornish	Maximum	87	84	76	67	74	83	90	88	82	70	87	96	93	79	81	85	86	89	94	94	75	83	78	86	83	80	85	80	82	75	60	83.2		
	Minimum	49	58	60	51	54	48	53	63	61	54	61	68	70	56	51	63	62	71	67	65	68	68	68	68	68	68	65	62	49	62	65	60.8		
Eastport	Maximum	67	64	54	59	62	66	58	57	76	68	63	86	79	69	69	64	80	63	72	69	66	76	62	61	67	76	71	62	58	47	65	64.2		
	Minimum	54	49	47	50	52	49	48	47	53	49	48	55	51	48	48	51	50	57	51	52	51	51	52	50	50	58	56	51	48	47	50.4			
Farmington	Maximum	85	76	67	69	77	86	87	83	81	77	84	93	92	78	81	75	88	89	89	94	79	75	84	86	84	90	80	77	81	82	89	82.6		
	Minimum	51	46	57	54	53	48	50	55	50	48	53	61	63	53	48	53	63	68	68	65	63	64	65	66	96	65	63	48	47	60	63	57.4		
Greenville	Maximum	76	75	63	59	72	81	85	72	85	78	83	89	81	73	78	68	79	87	87	92	77	81	84	83	80	83	72	72	79	77	63	67.5		
	Minimum	55	43	57	52	50	46	52	59	52	43	51	65	65	40	47	52	64	50	63	67	66	64	64	65	66	66	61	49	46	58	56.1			
Millinocket	Maximum	80	25	72	62	74	83	87	86	79	79	83	92	91	77	77	75	82	88	92	84	86	86	78	83	84	84	76	74	77	75	86	81.0		
	Minimum	55	47	55	53	52	44	55	59	46	44	58	65	68	49	46	54	62	49	65	67	60	70	66	66	68	67	61	49	47	62	60	56.0		
Orono	Maximum	81	81	73	66	68	83	85	80	81	80	81	94	94	79	80	73	84	87	90	71	90	85	84	83	88	85	80	77	76	80	89	81.9		
	Minimum	55	48	55	55	53	47	54	55	51	50	56	66	69	54	48	53	58	55	59	66	68	62	64	59	64	64	62	51	51	59	61	57.0		
Portland	Maximum	83	83	67	62	70	70	77	78	73	63	76	94	90	69	68	72	81	77	83	80	71	80	66	75	73	76	76	72	76	72	91	75.6		
	Minimum	57	58	59	55	54	55	56	59	60	58	59	72	67	59	57	57	64	60	66	63	59	63	62	60	63	62	63	56	55	58	69	60.0		
Presque Isle	Maximum	68	77	66	60	72	79	80	78	72	80	87	88	84	85	83	78	78	88	92	96	33	89	82	89	78	78	72	78	78	82	80	80.0		
	Minimum	49	52	54	52	56	43	54	59	40	38	54	68	64	54	64	53	68	43	50	63	67	64	67	65	64	68	56	44	45	62	61	56.0		
Rumford	Maximum	81	76	68	62	72	84	88	82	78	75	82	92	87	74	78	77	85	87	95	91	74	84	82	82	83	86	80	76	82	76	85	80.7		
	Minimum	52	54	60	58	56	52	58	62	58	54	63	68	67	56	55	57	68	62	68	72	70	70	71	72	70	70	70	57	56	53	64	68.1		
Van Buren	Maximum	60	76	68	65	76	84	86	83	76	82	83	88	83	83	83	86	82	87	89	95	90	90	80	83	83	80	84	75	89	90	81.5			
	Minimum	49	41	40	55	45	64	56	56	45	39	54	67	61	41	42	55	62	41	50	58	63	73	63	65	64	62	50	45	41	63	60	53.7		
New Hampshire.																																			
Alstead Center	Maximum	78	79	71	68	72	82	86	83	81	74	82	88	82	75	81	81	85	86	87	78	75	82	84	89	75	78	80	78	76	77	87	79.9		
	Minimum	52	56	59	56	54	58	58	65	65	61	65	70	61	62	58	55	66	68	68	69	68	68	69	68	69	68	65	67	68	60	53	58	72	63.0
Bothlehem	Maximum	77	76	72	60	72	80	84	78	76	73	81	90	85	76	78	83	82	86	89	79	79	85	76	87	84	80	78	81	73	82	80	80.0		
	Minimum	51	55	58	54	51	47	55	61	53	54	57	60	64	52	53	60	63	56	68	62	64	65	64	61	63	62	63	49	52	60	64	58.4		
Concord	Maximum	84	82	74	65	71	83	89	89	80	68	65	94	87	76	80	83	85	87	92	90	76	80	79	84	78	76	82	78	80	78	92	81.5		
	Minimum	49	53	61	56	56	52	53	65	63	61	63	71	69	55	52	56	68	65	69	61	69	67	69	69	69	69	67	55	53	62	66	61.8		
Franklin	Maximum	84	83	81	70	74	85	89	81	84	69	67	94	89	80	80	83	85	89	89	94	94	88	78	82	82	84	76	82	81	80	77	90	83.5	
	Minimum	50	52	59	57	55	51	54	64	60	59	64	68	68	62	53	55	69	62	66	62	69	67	69	68	69	68	68	59	52	59	66	61.4		
Hanover	Maximum	82	83	75	65	77	85	89	83	81	71	85	93	89	79	81	81	85	89	92	94	84	78	82	89	84	76	82	81	80	77	90	83.3		
	Minimum	49	52	60	51	56	47	53	63	56	51	64	69	60	57	55	57	70	58	66	63	69	66	69	61	68	68	68	61	56	52	60	66	60.6	
Nashua	Maximum	86	87	78	71	72	84	93	93	80	76	84	97	88	76	80	84	78	88	92	90	84	85	76	74	78	78	76	78	79	95	82.7			
	Minimum	50	58	62	59	55	50	54	70	66	64	64	71	74	66	64	56	68	66	70	61	67	67	68	68	68	70	72	64	52	62	62	63.3		
Plymouth	Maximum	81	79	74	65	78	88	92	85	70	87	92	86	81	89	81	89	85	89	91	79	80	83	82	83	80	78	79	77	86	82.6				
	Minimum	46	50	60	57	51	48	53	62	59	55	64	66	66	62	55	59	65	65	62	69	69	70	68	72	68	61	57	52	61	65	60.9			
Vermont.																																			
Burlington	Maximum	82	71	61	58	73	82	82	72	72	77	82	91	82	75	78	84	84	87	84	90	91	84	83	87	88	87	85	77	79	81	79	85	80.8	
	Minimum	54	61	57	54	55	53	62	57	55	53	69	75	62	55	56	66	63	63	69	72	70	70	67	65	67	73	69	64	65	70	67	62.4		
Enosburg Falls	Maximum	72	72	66	59	72	84	79	72	75	84	84	91	83	78	78	86	79	80	92	92	80	87	90	85	87	90	83	81	79	82	83	83	83	81.8
	Minimum	48	56	59	54	56	49	56	49	59	64	76	79	49	40	50	67	53	65	76	65	64	60	65	66	60	62	47	58	70	70	62	60.2		
Northfield	Maximum	79	74	69	57	71	82	87	78	77	71	81	90	92	77	78	85	82	85	80	89	83	81	87	88	84	81	78	78	81	80	87	80.4		
	Minimum	48	51	57	54	50	44	54	51	51	50	60	68	62	52	54	62	59	64	64	59	63	66	65	61	65	61	53	49	52	65	63	57.1		
St. Johnsbury	Maximum	82	81	75	69	75	87	87	85	81	78	87	94	87	84	80	84	86	91	94	89	87	92	93	92	92	88	84	84	82	80	86	85.2		
	Minimum	48	55	58	55	55	47	55	64	52	54	75	68	68	53	54	62	60	59	66	65	65	68	65	61	65	69	66	49	52	65	64	60.1		
Wells	Maximum	80	76	70	60	79	76	82	76	76	76	81	87	82	82	81	78	86	86	86	82	80	86	86	86	84	85	80	78	78	86	79	86	79.6	
	Minimum	50	55	58	54	52	50	58	58	59	65	72	78	78	58	60	58	68	67	65	65	65	65	65	65	66	65	66	57	53	65	72	61.5		
Massachusetts.																																			
Amherst	Maximum	86	85	79	68	74	86	88	88	74	79	84	92	84	81	80	84	78	82	93	93	84	83	86	86	89	77	70	89	78	78	79	64	82.8	
	Minimum	46	56	62	58	57	62	57	68	62	61	68	68	75	69	67	67	74	74	66	65	68	66	65	68	69	70	70	68	79	59	67	62.5		
Blue Hill	Maximum	80	81	76	61	70	84	88	68	75	79	79	87	84	67	76	76	74	83	85	87	73	78	79	79	79	76	77	68	72	74	88	76.5		
	Minimum	56	60	60	45	51	55	56	16	50	60	64	69	67	59	56	55	65	68	66	66	65	68	66	65	66	67	64	59	56	58	72	61.8		
Boston	Maximum	86	87	79	67	75	79	91	72	74	82	92	90	79	79	84	80	83	90	90	84	83	78	78	78	78	78	78	72	76	78	93	80.3		
	Minimum	61	68	64	59	50	58	61	72	65	62	68	74	71	61	58	69	70	70	72	71	64	65	65	65	65	69	66	61	58	62	73	65.0		
Cape Cod	Maximum	83	88	78	65	96	77	88	87	75	75	80	89	87	74	74	84	85	87	86	86	77	81	73	79	79	79</								



Scale of Shades.





Stations.	Watershed.	Day of month.																																Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
<i>Rhode Island.</i>																																		
Block Island ***	Coast			.94	T.	.01				.16	.04	.11		.73	.15			.02			.21	.62	.37	2.43	.34	.06	.10	.08					7.37	
Bristol	do		1.20	*	.06					*	.20	.03			1.46			.06			*	1.44		*	4.08	.01	.63	1.23					10.40	
Greene	do		.32	.43	.08						.61		.04	1.10	1.21							1.95		1.20	.28	.02	.48	.07	.74				8.53	
Hope Valley	do		1.03	T.						.18	.28			1.45	.10			.11				1.67		2.70	.62	.11	.08	.48					8.81	
Kingston	do		.90	.05	.12					.80	.82	.10		1.75	.10			.12	.10	1.93		.04	3.32	.67	.18	.43	.32						11.75	
Narrag'sett Pier***	do		1.14	.06	.10					.16	.38	.45	.03	1.60	.24			.05				1.45		3.54	.69	.07	.23	.49	.01				10.65	
Pawtucket	do		.33	.33						*	1.10	T.		2.56				.09			T.	1.39	*	1.72			.39	.50					8.41	
Providence**	do		.42	.25	.02				T.	.07	.45	.02		1.27				.05				.31	.80	.01	2.02	.05	.07	.21	.35				6.37	
Wallum Lake	do		.45	.30						.63				.45								1.20		.90		.30	.20	.27					4.70	
<i>Connecticut.</i>																																		
Bridgeport	Coast		.71	.90	T.					.03	.22	.34		1.70	.18			.09				.45	T.	.13		.13	T.	.80					4.73	
Canton	Connecticut		1.01		T.					.17	.12	.20		1.08				.03				.56	.04	.05	T.	T.	1.05	.14					4.41	
Colchester	Coast		1.00		T.					.31	.27	.02		1.83	.27			.17				.77	.03	1.07		*	.45	.50					6.69	
Cream Hill	Housatonic	T.	1.32		.12				T.	.20	.05	.25	1.05	.40				.10			T.	.30	T.	.18		.05	.85	.35					5.21	
Danielson	Coast		.64	.10					T.	T.			.10	2.00				.15				1.32		.20	.05		.05	2.25					7.77	
East Hartland	do		.66		.06					.30		.34		.91				.14				.50	.40	.65	.04		.44	.88	.22				5.81	
Falls Village	Housatonic		.50	1.16	.01	.06			.05	.18	.04	.25	1.24	1.81				.05				.12		.05		.04	.29	1.50					7.31	
Hartford ***																																		

T. Precipitation is less than 0.01 inch rain or melted snow.

\* Precipitation indicated in that or following day.

\* Precipitation indicated in that or following day.

†† Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.

[illegible]



U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU

CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

AUGUST, 1916

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BY

JOHN W. SMITH

METEOROLOGIST

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
SEPTEMBER 22, 1916



Departure of the Mean Temperature from the Normal, August, 1916.





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

VOL. XXVIII. BOSTON, MASS., AUGUST, 1916. No. 8.

## GENERAL SUMMARY.

The weather during the month was warmer and more pleasant than usual. For the section the average temperature was higher than that of any other August in the past 9 years. The greatest excess in temperature was in the northwestern portion, where, in a large part of Vermont, it was more than three degrees. In the remainder of the section the excess in temperature was between 1° and 2°, except in Rhode Island, where there was a slight deficiency. The highest temperature for the month and also for any August in the record of the section since 1888, was 104°, at Cornwall, Vt. The rainfall for the section was below the normal and the least for any August since 1907. The deficiency ranged from between 2 and 3 inches in Rhode Island to a slight excess in Maine. A moderate number of thunderstorms and heavy local showers occurred, but, as a rule, there was no material damage.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 13 stations reporting, was 29.98 inches, which was normal for the month, and also the same as the mean for August, 1915. The highest monthly mean was 29.99 inches, at Northfield, Vt., and Block Island, R. I.; the lowest, 29.95 inches, at Eastport, Me. The highest recorded was 30.31 inches, at Portland, Me., on the 10th; the lowest, 29.48 inches, at Eastport, Me., on the 4th. The monthly range for the section was 0.83 inch.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 3 stations, was 69.0°, which was 3.1° above the mean for August, 1915, and the highest average temperature for the month since 1906. During the past 28 years the average August temperature has been higher in 4 years and lower in 24 years than that of the present month. The highest average August temperature during this period was 70.0°, in 1906; the lowest, 1.8°, in 1903. The average temperature for the several states of the section was as follows: Maine, 67.6°; New Hampshire, 8.3°; Vermont, 68.3°; Massachusetts, 69.8°; Rhode Island, 8.5°; Connecticut, 70.7°. The average temperature for the section was 1.7° above the normal. The departures from the normal for the several states were as follows: Maine, +2.0°; New Hampshire, +1.6°; Vermont, +3.1°; Massachusetts, -1.8°; Rhode Island, -0.2°; Connecticut, +1.5°. The highest monthly mean was 73.6°, at New London, Conn.; the lowest, 60.2°, at Eastport, Me. The highest recorded was 104°, at Cornwall, Vt., on the 21st; the lowest, 30°, at Cavendish, Vt., on the 29th. The greatest local monthly range was 64°, at Cavendish, Vt.; the least, 23°, at Nantucket, Mass. The greatest daily range was 57°, at Woodstock, Vt., on the 15th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 14 stations reporting, was 80 per cent, which was normal for the month, and 3 per cent below the average for August, 1915. The highest monthly average was 90 per cent, at Nantucket, Mass.; the lowest, 73 per cent, at Fall River, Mass., and New Haven, Conn.

## PRECIPITATION.

The average for the section, as determined from the records of 3 stations, was 2.75 inches, which was 2.86 inches below the

average for August, 1915, and the lowest for the month since 1907. During the past 28 years the average August precipitation has been greater in 26 and less in only 2 years than that of the present month. The greatest August precipitation during this period was 5.67 inches, in 1898; the least, 1.66 inches, in 1897. The average for the several states was as follows: Maine, 3.71 inches; New Hampshire, 3.16; Vermont, 2.51; Massachusetts, 2.32; Rhode Island, 1.41; Connecticut, 2.77. The average for the section was 1.10 inches below the normal for the month. The departures from the normal for the several states were as follows: Maine, +0.28 inches; New Hampshire, -0.55; Vermont, -1.30; Massachusetts, -1.45; Rhode Island, -2.34; Connecticut, -1.58. The greatest monthly amount was 7.83 inches, at North Bridgton, Me.; the least, 0.57 inch, at Block Island, R. I. The greatest amount in 24 hours was 3.92 inches, at Farmington, Me., on the 9th. The average number of days with .01 inch or more of precipitation was 8, 2 less than the normal number for the month.

## WIND.

The prevailing direction of the wind was from the southwest, which is the normal direction for the month, as determined from the records of the past 29 years. The average monthly wind movement for the section, 14 stations reporting, was 6,373 miles. The greatest monthly wind movement was 10,617 miles, at Blue Hill Observatory, Hyde Park, Mass.; the least, 3,059 miles, at Concord, N. H. The average hourly velocity was 8.6 miles, which was 0.1 mile above the average for August, 1915, and 0.5 mile above the normal for the month. The highest recorded velocity was 46 miles per hour from the northwest, at Providence, R. I., on the 8th. This is somewhat less than the usual maximum velocity for the month.

## SUNSHINE AND CLOUDINESS

The average number of clear days for the section was 17; partly cloudy, 8; cloudy, 6, which compares with the normal for the month of 12 clear, 10 partly cloudy, and 11 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 63, which was 17 per cent more than the average for August, 1915, and 3 per cent above the normal for the month, as determined from the records of the past 23 years. This is the greatest amount of sunshine in any August since 1907. The greatest percentage of possible sunshine in any August since the beginning of the automatic record in 1894, was 67, in 1895; the least, 46, in 1915. The greatest percentage of possible sunshine was 71, at Boston, Mass.; the least, 56, at Northfield, Vt.

## DATES OF MISCELLANEOUS PHENOMENA.

*Halos, Lunar.*—Boston, Mass., 16.

*Halos, Solar.*—Woodstock, Vt., 16, 18, 21.

*Auroras.*—Madison, Me., 26, 29; North Bridgton, Me., and Enosburg Falls, Vt., 29; Brookline, N. H., Burlington, Vt., Blue Hill and Leominster, Mass., Block Island and Pawtucket, R. I., 26; Hanover, N. H., 1; Newton, N. H., and Northfield, Vt., 26, 28; Plymouth, N. H., 28, 29; Cavendish, Vt., 22; Northfield, Vt., 26, 28; Boston, Mass., and New Haven, Conn., 28; Concord, Mass., 19, 26.

*Thunderstorms* (dates and number of observers reporting on each)—Maine: 3d, 2; 4th, 2; 5th, 3; 6th, 1; 7th, 1; 8th, 8; 9th, 1; 12th, 1; 18th, 2; 21st, 1; 23d, 8; 24th, 1; 26th, 3; 27th, 6; 28th, 1; 30th, 3. New Hampshire: 5th, 1; 6th, 1; 8th, 8; 9th, 2; 12th, 2; 23d, 10; 24th, 1; 26th, 5; 27th, 9; 28th, 1; 30th, 1. Vermont: 5th, 1; 6th, 1; 8th, 7; 12th, 1; 21st, 1; 23d, 6; 26th, 4; 27th, 3; 30th, 2. Massachusetts: 4th, 1; 8th, 23; 10th, 4; 21st, 2; 23d, 15; 24th, 4; 26th, 5; 27th, 14; 28th, 9. Rhode Island: 6th, 1; 7th, 1; 8th, 4; 9th, 1; 10th, 1; 23d, 1; 27th, 4; 28th, 2. Connecticut: 6th, 3; 8th, 14; 9th, 3; 10th, 3; 21st, 1; 23d, 9; 24th, 1; 26th, 3; 27th, 9; 28th, 4; 30th, 1.



## Climatological Data for August, 1916.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.					Precipitation, in inches.				No. of days.				Prevailing direction of wind.	Observer.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.			Partly Cloudy.	Cloudy.
Maine.																				
Bar Harbor §	Hancock	20	30																	William Miller.
Cornish	York	778	61	69.0	+2.8	95	23	45	14†	37	4.13	-0.08	1.94	0	9	14	8	9	sw.	T. H. West.
Eastport	Washington	53	44	60.2	+0.5	80	21	47	14	28	1.82	-1.44	0.54	0	9	12	9	10	s.	U. S. Weather Bureau.
Fairfield	Somerset	90	31	66.8	+1.4	88	21	47	2	39	4.23	+1.13	1.95	0	10	22	2	7	.....	U. Paperboard Co., Inc.
Farmington	Franklin	450	19	66.8	+2.1	94	21	89	29	38	7.50	+3.81	3.92	0	11	17	6	8	w.	State Normal School.
Gardiner §	Kennebec	163	24	69.0	+0.6	92	23	47	2†	34	3.01	-0.41	1.00	0	10	22	4	5	s.	Samuel D. Soule.
Greenville	Piscataquis	1,140	12	65.2		91	20	40	2	36	2.95	-0.85	0.74	0	12					U. S. Weather Bureau.
Houlton	Aroostook	362	14	70.0		94	20	39	2	38	1.57	-1.24	0.63	0	5	16	7	5	w.	Bangor & Aroostook RR.
Langtown	Franklin		33	63.7		89	19†	35	2	41	4.19		1.50	0	10	11	19	15	.....	Langtown Co.
Lewiston	Androscoggin	185	33	69.0	+1.9	92	21	50	14†	28	2.69	-0.57	1.05	0	11	18	7	6	s.	Union Water Power Co.
Madison §	Somerset	257	13	68.2		93	22	43	29	32	6.93	+2.44	2.44	0	10	25	5	1	w.	William Jardine.
Millinocket	Penobscot	386	13	66.2		93	21	36	2	42	2.35	-1.16	1.04	0	8	16	3	12	s.	Great Northern Paper Co.
North Bridgton	Cumberland	450	23	69.6	+2.4	97	21	45	21	35	7.83	+4.57	2.03	0	11	15	11	5	s.	C. L. Chadbourne.
Orono §	Penobscot	129	47	68.8	+3.3	93	21	42	2	39	2.27	-1.06	0.50	0	7	24	4	3	sw.	Maine State College.
Patten	do	550	14	67.6		98	21	36	2	48	2.80	-0.89	1.00	0	5	17	1	9	sw.	Bangor & Aroostook RR.
Portland	Cumberland	99	45	66.4	+0.2	89	8	49	29	28	2.14	-1.43	0.81	0	10	16	8	7	sw.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	7	71.9		93	20	36	2	41	1.70	-0.38	0.75	0	4	11	18	2	w.	E. M. Libby.
Rumford §	Oxford	505	23	68.2	+2.5	92	21	47	2†	31	6.36	+3.04	2.57	0	11	23	3	5	n.	Charles A. Mixer.
Van Buren	Aroostook	510	12	68.2		92	20†	36	2	49	1.69	-1.73	0.85	0	6	20	11	0	sw.	Rev. J. M. Thomas.
Winslow	Kennebec	90	21	69.2	+3.5	97	21	45	22	37	4.41	+1.20	1.40	0	9	10	12	9	sw.	Hollingsworth & Whitney.
New Hampshire.																				
Alstead Center.	Cheshire	1,120	12	68.7	0.0	91	21	45	29	30	5.33	+1.21	1.51	0	8	20	6	5	sw.	Frank Dewing.
Bethlehem	Grafton	1,470	24	65.8	+1.8	88	19†	40	29	33	3.23	-0.65	1.57	0	10	20	4	7	sw.	Benjamin Tucker.
Concord	Merrimac	350	56	68.7	+2.1	94	21	44	29	36	3.45	-0.29	2.17	0	8	18	9	4	s.	U. S. Weather Bureau.
Durham §	Stafford	88	21	68.6	+0.6	95	21†	44	29	38	1.69	-1.61	1.60	0	4	17	10	4	sw.	N. H. Agr. College.
Franklin	Merrimac	440	17	69.0	+3.4	94	21	45	29	37	3.51	-0.33	1.24	0	9	19	5	6	w.	Dr. C. P. Webster.
Glencliff	Grafton	1,650	3																	State Sanatorium.
Grafton	do	863	30	66.3	+1.6	92	21	39	14	41	2.37	-1.22	1.21	0	7	23	4	4	w.	P. K. Kimball.
Hanover	do	603	82	69.2	+3.1	96	21	43	30	40	2.85	-0.71	0.90	0	11	7	16	8	s.	Dartmouth College.
Keenes §	Cheshire	506	31	68.6	+2.4	94	21	39	14	37	3.27	-0.66	0.83	0	10	20	7	4	se.	Samuel Wadsworth.
Nashua §	Hillsboro	125	31	71.0	+2.4	97	21	39	29	36	2.66	-1.16	1.15	0	7	14	11	6	sw.	C. B. Stevens.
Newton	Rockingham	126	28	67.4	+0.4	93	8	43	29	35	2.97	-0.13	0.74	0	7	17	11	3	sw.	W. C. Gale.
Plymouth	Grafton	500	28	67.5	+1.8	90	21	43	15	35	3.43	-0.49	1.85	0	8	20	0	11	w.	Mrs. Hattie G. Trow.
Vermont.																				
Bloomfield	Essex		9	65.4		91	21	39	14	38	4.16	+0.45	1.74	0	12	20	4	7	s.	Lyman Falls Power Co.
Burlington	Chittenden	404	9	69.1	+3.0	94	20	47	29	34	1.06	-2.95	0.47	0	8	14	10	7	s.	U. S. Weather Bureau.
Cavendish	Windsor	910	13	67.6		94	21	30	29	44	1.50	-2.65	0.38	0	10	17	11	3	.....	Colonial Power Co.
Chelsea	Orange	840	21	66.4	+2.5	93	21	38	30	41	1.91	-1.69	0.66	0	9	18	5	8	n.	W. F. Dewey.
Cornwall	Addison	517	23	71.4	+3.5	104	21	46	14	34	1.38	-2.35	0.75	0	8	11	12	5	s.	C. H. Lane.
Enosburg Falls	Franklin	601	25	68.2	+3.6	93	20	42	2†	40	3.38	-0.46	1.84	0	11	22	5	4	s.	J. W. Pomeroy.
Hyde Park	Lamoille	576	4	67.6		96	19	43	29†	40	2.74		1.71	0	10	13	9	8	s.	A. V. Wiswell.
Northfield	Washington	876	30	65.2	+2.3	92	22	40	29	38	1.94	-1.99	0.85	0	12	11	10	10	n.	U. S. Weather Bureau.
Somerset §	Windham	2,096	5	63.1		90	21	36	28†	39	2.20		0.66	0	10	15	11	5	nw.	Power Construction Co.
St. Johnsbury	Caledonia	711	23	69.8	+5.4	96	21	43	30	40	4.62	+1.14	2.43	0	12	18	7	6	n.	Fairbanks Museum.
Vernon	Windham	310	1	70.9	+2.1	99	21	48	13†	39	3.55	-0.53	2.33	0	5	15	10	6	nw.	Conn. River Power Co.
Wells	Rutland	750	25	67.8	+1.4	88	19†	45	29	26	2.60	-1.54	1.20	0	8	16	13	2	sw.	E. R. Pember.
Woodstock	Windsor	700	24	69.8	+4.5	100	15	39	30	57	1.48	-1.71	0.78	0	5	14	12	5	.....	John S. Eaton.
Massachusetts.																				
Amherst §	Hampshire	222	27	70.6	+2.4	96	22	45	29	35	2.49	-1.90	1.44	0	8	15	9	7	sw.	Mass. Agr. College.
Blue Hill †	Norfolk	640	32	69.4	+2.0	91	8	50	14†	24	2.81	-0.80	1.03	0	9	14	8	9	sw.	Blue Hill Observatory.
Boston	Suffolk	124	46	71.8	+2.9	90	8	54	29	25	2.19	-1.84	1.10	0	9	18	7	6	sw.	U. S. Weather Bureau.
Chestnut Hill §	do	124	36	70.9	+1.3	95	8	45	29	35	2.78	-1.11	1.29	0	8	24	0	7	.....	Met. Water Board.
Clinton §	Worcester	370	20	69.4		88	8†	49	29	35	2.14	-1.26	0.66	0	7					Do.
Concord §	Middlesex	139	26	68.7	+1.6	92	8	43	29	33	2.07	+1.54	0.80	0	7	16	10	5	s.	Fred A. Tower.
Fall River	Bristol	200	50	70.6	+0.4	86	8	53	29	26	2.03	-1.83	1.18	0	8	11	17	3	sw.	C. V. S. Remington.
Fitchburg §	Worcester	550	83	70.2	+1.9	94	21	47	14	31	2.54	-1.53	0.95	0	9	20	4	7	w.	Dr. A. P. Mason.
Framingham §	Middlesex	160	36	70.8	+2.0	95	8	46	29	35	2.00	-1.70	0.58	0	9					Met. Water Board.
Lawrence §	Essex	51	32	70.4		93	8	48	29	32	2.80	-1.14	0.96	0	9	12	15	4	s.	Essex Company.
Lowell §	Middlesex	100	31	71.5	+2.1	91	8†	47	29	30	2.25	-1.20	0.62	0	7					Props. Locks & Canals.
Nantucket	Nantucket	47	30	67.3	-0.7	80	6	57	13	19	1.65	-2.01	0.58	0	5	15	11	4	sw.	U. S. Weather Bureau.
New Bedford	Bristol	88	104																	City Engineer.
Plymouth	Plymouth	50	31	65.6		82	9	46	27	29	1.07	-1.07	0.60	0	7	23	1	7	w.	Miss L. B. Knapp.
Provincetown	Barnstable	40	29	68.2	-1.0	82	21	53	12	23	1.41	-1.50	0.43	0	6	23	4	4	.....	Gideon Bowley.
Rockport §	Essex	25	14	67.2		82	8	52	14†	29	2.74		1.04	0	10	19	4	8	sw.	U. S. C. G. Station.
Rutland §	Worcester	1,160	14	68.2		90	21†	46	13	26	1.84		0.46	0	10	23	3	5	sw.	State Sanatorium.
Springfield	Hampden	199	6	72.4	+1.7	97	22	46	29	34	2.31	-1.70	0.84	0	7	15	11	7	se.	U. S. Army.
Turners Falls §	Franklin	200	30	70.3	+2.7	90	8†	46	29	31	4.19	+0.32	2.68	0	9	17	5	9	.....	Turners Falls Co.
Westboro	Worcester	298	42	71.9	+2.2	93	8	48	29	21	1.73	-2.31	0.78	0	9	16			w.	Miss E. W. Newcomb.
Williamstown §	Berkshire	711	35	69.0	+3.7	90	8†	46	14†	29	2.45	-1.85	0.76	0	9	16	9	6	w.	Williams College.
Worcester	Worcester	518	24	72.2	+3.3	94	8†	51	29	23	2.65	-1.61	0.99	0	10	16	9	6	sw.	G. W. Swan.
Rhode Island.																				
Block Island	Newport	26	36	6																



## Daily Precipitation for August, 1916.

Stations.	Watershed.	Day of month.																															Total		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Maine.																																			
Ashland	St. John				.22	.31			.44						.13																		1.24		
Bar Harbor	Coast																												.11						
Cambridge	Kennebec																																		
Cornish	Saco																																		
Danforth	Penobscot			.14				.42				.18	.03											.45				.30			.20		1.92		
Eastport ***	Coast			.19	.01	.02	.46			T.	.28		.09	.02									.01	.29				.54	.08	.02	.01		1.82		
Eustis	Kennebec			.149			2.29	.05			.10	.09	.18										.08	.09			.20	.54	.11	.04			5.58		
Fairfield	do			.25			.01	1.95			.05	.01											.07	.09			.20	.54	.11	.04			4.23		
Farmington	do			.112			.37	3.92			.03	1.13											.08	.72			.38	.27		.20			7.50		
Gardiner	do				.58		.15	1.00	T.	.03					T.								.29	.60			.04	.26	.03		.03		3.61		
Greenville **	do	T.		.74		.56	.62	.10		.04	.02	.01	.03						T.				.10				.38	.65		.30			2.95		
Houlton	St. John	.15		.08		.44				.27																	.63						1.57		
Howe Brook	Penobscot	.07	.14	.40			.30	.10		.13					.05							T.	.02	.06	.15		.06	.25		.04			1.76		
Langtown	Kennebec			T.		1.21	.99	.04	1.50		.04		.07														.18	.15	.04				4.19		
Lewiston	Androscoggin			.07		.32	1.05	.10		.04	.04																.03	.13	.14		T.		2.69		
Madison	Kennebec			.121	.32	2.76	.26			.06	.04													.56	.21		.03	.13	.14		T.		6.93		
Millisocket	Penobscot																								.54		1.04	.25		.45					
North Bridgton	Saco				.75		1.72	2.03	.20	.02	.01	T.																.01	1.78	.17	.02			7.83	
Orono	Penobscot				.26		.46	.43			.20				.20													.12	.30				2.27		
Patten	do		.40	1.00	T.			1.00			.10																						2.80		
Portland ***	Coast	T.			.01		.33	.48	.01		.10			.01										.20									2.14		
Presque Isle	St. John			.12		T.	.75			.38																		.16	.29				1.70		
Rumford	Androscoggin			.60			1.59	1.46	T.	.05	.03																	.15					6.96		
Van Buren	St. John			.05	.85	.15		.05		.05	.03																.28	.15	.16		.17		1.69		
Winslow	Kennebec			.53		.10	*	1.40			.09																.09	.18		.14			4.41		
New Hampshire.																																			
Alstead Center	Connecticut				T.				1.15	.50	.01		.15	.38													1.25						5.33		
Bethlehem	do					.33		.01	1.57			.04	.23															.28	.31				3.23		
Brookline	Merrimack							.16	.13	T.	.08		.26														1.10	.25		.16	.53		2.61		
Concord ***	do							.22	.38			.06	.10														2.15	.02		.28	.24		3.45		
Durham	do	.01						.09																				.59					1.69		
Franklin	do																																		
Glencli	do																																		
Grafton	do							.30	.27			.21																							
Hanover	Connecticut	T.					.90	.51	.05		.03	.06															1.21		.10	.07	.21		2.37		
Keene	do						.35	.24	.06		.08	.31	.06														.19	.13	T.	.41	.21	.26	T.	2.85	
Nashua	Merrimack						.09	.04	.11		.08	.29																.57	.33		.59	.23		.01	3.27
Newton	do																																		
Plymouth	do	T.					.74	.29		.08	.23																							2.66	
	do	T.				T.			.24	1.85	.30		.04															.49	T.	.73	.41			2.97	

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## Daily Temperatures for August, 1916.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean		
Maine.																																		
Cornish	Maximum	68	71	69	67	68	75	67	75	65	66	61	69	70	66	69	68	67	66	69	73	80	78	62	58	70	73	65	71	70	66	68	68.7	
	Minimum	51	48	51	52	51	58	53	54	55	54	52	56	50	47	49	48	48	50	51	49	52	53	52	51	56	52	51	54	50	49	56	51.9	
Eastport	Maximum	76	80	78	86	75	80	84	83	70	70	71	80	70	67	82	85	80	86	90	91	94	85	91	70	80	76	70	67	75	70	78	79.2	
	Minimum	54	43	47	55	63	60	65	68	58	55	47	55	59	43	49	47	52	68	52	64	68	62	58	60	50	49	60	50	39	43	50	54.5	
Farmington	Maximum	69	76	76	82	75	77	72	77	68	77	75	76	66	62	78	83	86	86	89	91	89	81	81	70	76	77	72	64	72	78	73	76.6	
	Minimum	59	40	45	57	63	61	50	66	58	53	45	53	50	48	47	52	54	59	59	61	64	60	65	56	52	46	56	52	44	45	48	53.7	
Greenville	Maximum	78	76	76	82	81	81	88	81	82	80	79	81	82	69	79	86	87	87	89	90	93	91	87	86	81	81	80	77	75	77	80	82.1	
	Minimum	59	42	55	59	60	61	49	64	64	54	50	55	47	46	52	52	54	58	59	91	63	58	62	58	52	62	58	48	48	51	55.6		
Millinocket	Maximum	76	69	76	75	63	63	78	89	61	66	65	77	68	73	75	80	77	76	78	80	82	82	82	82	82	72	73	66	70	71	67	74.2	
	Minimum	60	54	59	61	61	61	61	61	57	58	54	56	51	51	56	60	59	58	63	61	62	65	63	65	60	58	64	53	49	52	56	58.5	
Orono	Maximum	71	77	82	82	75	75	79	75	75	81	81	81	71	65	82	86	87	88	89	93	91	81	82	78	78	80	76	68	74	77	75	79.0	
	Minimum	55	36	59	60	65	58	63	69	65	65	65	73	73	64	70	79	80	86	80	90	92	86	88	70	77	78	67	69	63	67	67	64.8	
Presque Isle	Maximum	76	78	78	84	80	80	83	83	68	74	73	73	64	70	79	80	86	86	89	90	92	86	88	70	77	78	78	80	76	78	76	78.9	
	Minimum	58	47	52	59	63	60	56	72	60	57	50	60	53	50	52	56	62	62	68	66	68	64	62	56	54	60	51	48	87	54	57.5		
Rumford	Maximum	74	77	77	80	77	75	76	75	77	81	79	79	79	70	81	88	88	88	91	92	92	88	88	91	92	92	88	75	72	72	72	81.9	
	Minimum	54	36	49	59	57	66	52	66	57	49	49	52	41	42	41	37	53	62	60	60	69	55	62	60	60	60	60	53	53	45	54.4		
New Hampshire.																																		
Alstead Center	Maximum	74	78	74	82	82	83	83	85	71	65	76	82	66	73	26	82	45	86	87	86	91	89	85	75	76	77	75	71	73	75	77	78.8	
	Minimum	60	48	55	53	68	68	63	68	59	58	53	61	53	43	58	58	55	60	62	63	63	69	66	60	52	55	63	52	45	48	55	58.6	
Bethlehem	Maximum	70	75	75	85	85	76	87	83	70	72	77	79	64	71	77	81	84	84	88	88	88	84	83	69	75	76	68	61	70	75	75	77.2	
	Minimum	53	42	57	55	62	61	54	70	56	55	47	58	49	45	47	56	54	58	60	62	64	61	63	58	50	49	58	48	40	45	49	54.4	
Concord	Maximum	76	80	78	84	79	86	91	91	72	7	71	84	70	76	81	85	86	83	89	88	94	90	92	66	80	79	82	63	74	80	81	80.7	
	Minimum	56	48	59	62	67	63	58	72	56	57	55	60	55	49	48	43	56	58	59	60	59	66	60	61	54	56	63	50	44	46	53	56.7	
Franklin	Maximum	75	75	75	83	87	83	92	86	73	75	80	83	69	76	80	87	91	90	93	94	96	94	90	73	80	79	80	64	75	81	83	82.4	
	Minimum	60	46	56	56	69	64	57	71	60	53	50	62	53	46	47	47	56	56	62	62	63	64	62	69	52	48	61	61	45	43	50	56.0	
Hanover	Maximum	81	84	81	88	80	91	94	97	73	63	75	88	81	76	84	89	88	81	90	88	94	94	94	94	70	84	82	82	60	76	82	84	83.3
	Minimum	63	48	59	61	62	67	58	70	58	53	57	57	53	48	49	54	60	59	60	60	60	60	60	66	56	60	62	57	45	52	60	58.7	
Nashua	Maximum	74	81	75	84	80	80	79	88	84	74	71	73	79	73	74	78	80	84	83	85	86	90	85	86	75	78	74	70	71	76	77	78.7	
	Minimum	57	52	59	55	65	65	59	70	58	56	48	61	55	44	43	46	54	59	62	78	63	62	61	61	55	53	60	54	46	45	54	66.3	
Vermont.																																		
Burlington	Maximum	71	79	75	88	87	75	91	82	66	74	79	80	68	75	80	84	89	88	91	94	93	90	80	73	79	82	68	59	74	76	29	79.6	
	Minimum	55	48	64	64	72	59	57	65	60	53	54	64	55	57	58	54	57	60	62	70	62	70	63	64	61	57	55	51	53	47	47	58	58.6
Enosburg Falls	Maximum	73	79	75	90	89	82	91	84	71	78	80	77	71	74	73	81	88	87	92	93	90	89	81	78	76	82	72	62	75	77	80.5		
	Minimum	56	42	60	66	64	61	51	77	61	68	50	64	43	47	53	51	49	66	57	63	67	58	60	61	58	48	56	49	42	51	49	56.0	
Northfield	Maximum	70	79	73	85	87	78	89	82	70	71	75	78	65	73	77	82	86	87	91	91	91	92	83	71	77	78	66	59	71	77	77	78.4	
	Minimum	48	43	53	55	66	56	54	70	58	51	47	61	52	46	45	47	48	55	55	57	62	58	60	49	45	42	53	44	40	42	47	51.9	
St. Johnsbury	Maximum	70	76	76	81	85	78	80	84	72	76	82	72	71	74	78	82	85	88	88	88	88	85	82	71	75	77	74	62	68	73	72	77.6	
	Minimum	58	50	60	60	65	65	60	70	62	58	52	62	56	45	50	52	56	60	63	68	65	64	65	57	56	72	58	52	45	52	55	57.9	
Massachusetts.																																		
Amherst	Maximum	82	83	80	86	84	90	91	83	78	68	77	86	70	76	81	84	88	87	90	90	94	96	92	72	82	84	82	62	75	80	80	82.7	
	Minimum	62	51	58	64	70	71	68	72	60	58	60	64	52	47	49	54	62	58	60	59	66	68	57	50	56	61	48	45	49	54	58.5		
Blue Hill	Maximum	77	79	76	80	74	80	86	91	71	68	64	81	72	73	79	79	77	77	83	83	87	82	87	70	82	82	79	70	73	77	80	77.7	
	Minimum	65	56	60	64	66	67	63	70	57	56	56	59	53	50	60	60	63	60	65	65	65	73	68	63	58	69	63	53	50	56	60	61.1	
Boston	Maximum	79	82	80	84	76	84	90	95	73	63	69	87	71	77	82	82	73	78	78	91	84	92	74	85	81	83	69	72	81	78	79	80.8	
	Minimum	65	59	63	68	69	70	67	73	58	59	59	62	58	51	60	64	96	62	63	66	66	70	70	66	63	69	66	56	54	59	64	63.7	
Concord	Maximum	77	79	78	83	76	85	88	92	70	78	83	84	66	73	80	81	83	80	86	86	88	89	90	70	83	83	81	69	73	79	82	79.8	
	Minimum	57	47	58	61	66	71	58	70	57	56	57	59	56	49	50	56	50	57	56	57	55	70	65	63	55	58	63	51	43	51	56	57.7	
Fitchburg	Maximum	78	8																															







Stations.	Watershed.	Day of month.																																Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
<i>Rhode Island.</i>																																		
Block Island ***	Coast						.10		.02	.10	.01		.04	T.														.03	.27				0.57	
Bristol	do								.07		.88	.11	.02															.26	.11				1.46	
Greene	do								.82		.30					.20												.80	.16				2.28	
Hope Valley	do																																	
Kingston	do								.23	.18	.52	.06	.08	.03										.06					.34				1.50	
Narrag sett Pier ***	do								.23		.21		.24	.08										.85					*	.11			1.72	
Pawtucket	do								.03	T.	.18	.01	.17	.05										.07				.23	.04				0.78	
Providence ***	do								.46		.30	.28		.07														.18	.97				2.27	
Wallum Lake	do																																	
<i>Connecticut.</i>																																		
Bridgeport	Coast								.41	.87	.33	.09	.12	T.										T.				T.	.11				1.93	
Canton	Connecticut																																	
Colchester	Coast						.28	.63	.25	T.	T.		T.										.28				.28	.90	.23				2.57	
Cream Hill	Housatonic						1.05	.22	.01	.12			.08										.59					.16	.36				2.87	
Danielson	Coast						1.50		.60	.05		.05											T.				.60	.50	.50				3.30	
East Hartland							.56		.12	.14													.60				.30	.44					2.16	
Falls Village	Housatonic								1.31		.14												1.00		T.	T.	.31	.04	.30				3.10	
Hartford **	Connecticut				T.	T.	T.	.51		.02	.01	.02	T.										.50	T.		T.	1.50	.88					3.44	
Hawleyville	Housatonic																																	
Lake Konomocott	Coast						.20		.75																				.75				1.70	
New Haven ***	do</																																	

T. Precipitation is less than 0.01 inch rain or melted snow.

\* Precipitation indicated in that of following day.

\* Precipitation indicated in that of following day.

†† Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.

[illegible]



U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU

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# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

SEPTEMBER, 1916

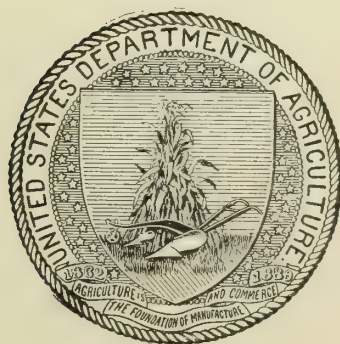
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BY

JOHN W. SMITH

METEOROLOGIST

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
OCTOBER 20, 1916



Departure of the Mean Temperature from the Normal, September, 1916.



Shaded portions show excess (+).  
Unshaded portions show deficiency (-).  
Lines show amount of excess or deficiency.

Scale: Miles  
0 100 200  
Kilometers  
0 100 200



## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

VOL. XXVIII. BOSTON, MASS., SEPTEMBER, 1916. No. 9.

## GENERAL SUMMARY.

Generally seasonable conditions prevailed through the month. The average temperature and precipitation were near the normal. There were no marked extremes in either the highest or the lowest temperature. Although killing frost occurred in scattered localities on several dates, there was no general heavy frost and the conditions were favorable for the maturing and harvesting of all late crops. The rainfall was well distributed through the month, but unevenly over the section. In the northern portion it was above the normal, the excess reaching 1.62 inches in Vermont, while in the southern portion it was below the normal, with the greatest deficiency in Rhode Island, where only about one-third of the normal amount fell.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 13 stations reporting, was 30.05 inches, which was .02 inch below the normal for the month, and the same as that of September, 1915. The highest monthly mean was 30.06 inches, at Nantucket, Mass., Block Island, R. I. and New Haven, Conn.; the lowest, 30.01 inches, at Eastport, Me. The highest recorded was 30.57 inches, at Portland, Me. and Northfield, Vt. on the 11th; the lowest, 29.59 inches, at Eastport, Me. on the 24th. The monthly range for the section was 0.98 inch.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 79 stations, was 60.3°, which was 3.1° below the mean for September, 1915. During the past 28 years the average September temperature has been lower in 16 years and higher in 12 years than that of the present month. The highest average September temperature during this period was 63.8°, in 1891; the lowest, 56.1°, in 1893. The average temperature of the several States of the section was as follows: Maine, 58.2°; New Hampshire, 58.0°; Vermont, 57.9°; Massachusetts, 62.5°; Rhode Island, 62.1°; Connecticut, 62.9°. The average temperature for the section was 0.5° above the normal. The departures from the normal for the several States were as follows: Maine, +0.6°; New Hampshire, -0.5°; Vermont, +1.0°; Massachusetts, +0.9°; Rhode Island, -1.2°; Connecticut, +0.6°. The highest monthly mean was 65.8°, at Bridgeport, Conn.; the lowest, 53.2°, at Somerset, Vt. The highest recorded was 93°, at Bridgeport, Conn. on the 8th; the lowest, 28°, at Langtown, Me. on the 4th, Chelsea, Vt. on the 26th, and Voluntown, Conn. on the 20th. The greatest local monthly range was 62°, at Voluntown, Conn.; the least, 30°, at Bristol, R. I. The greatest daily range was 51°, at Cavendish, Vt. on the 14th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 14 stations reporting, was 78 per cent, which was 2 per cent below the normal for the month, and the same as that of September, 1915. The highest monthly average was 85 per cent, at Concord, N. H.; the lowest, 70 per cent, at Fall River, Mass.

## PRECIPITATION.

The average for the section, as determined from the records of 31 stations, was 3.53 inches, which was 1.74 inches above the average for September, 1915, and the greatest for the month since 1909. During the past 28 years the average September precipitation has been greater in 10 and less in 18 years than that of

of the present month. The greatest September precipitation during this period was 8.29 inches, in 1888; the least, 0.98 inch, in 1914. The average for the several States was as follows: Maine, 3.56 inches; New Hampshire, 5.15; Vermont, 4.78; Massachusetts, 2.79; Rhode Island, 1.12; Connecticut, 3.14. The average for the section was 0.07 inch below the normal for the month. The departures from the normal for the several States were as follows: Maine, +0.02 inches; New Hampshire, +1.62; Vermont, +1.35; Massachusetts, -0.74; Rhode Island, -2.12; Connecticut, -0.75. The greatest monthly amount was 6.84 inches, at Vernon, Vt.; the least, 0.82 inch, at Block Island, R. I. The greatest amount in 24 hours was 3.09 inches, at Alstead, N. H., on the 15th. The average number of days with .01 inch or more of precipitation was 9, which is the normal number for the month.

## WIND.

The prevailing direction of the wind was from the southwest, which is the normal direction for the month, as determined from the records of the past 29 years. The average monthly wind movement for the section, 14 stations reporting, was 6,925 miles. The greatest monthly wind movement was 11,468 miles, at Blue Hill Observatory, Hyde Park, Mass.; the least, 3,412 miles, at Concord, N. H. The average hourly velocity was 9.6 miles, which was 0.2 mile above the average for September, 1915, and 0.6 mile above the normal for the month. The highest recorded velocity was 48 miles per hour from the south, at Blue Hill Observatory, Hyde Park, Mass. on the 29th, and from the northwest, at Block Island, R. I. on the 19th. This is less than the usual maximum velocity for the month.

## SUNSHINE AND CLOUDINESS

The average number of clear days for the section was 16; partly cloudy, 7; cloudy, 7, which compares with the normal for the month of 13 clear, 8 partly cloudy, and 9 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 64, which was 1 per cent above the average for September, 1915, and 11 per cent above the normal for the month, as determined from the records of the past 23 years. The greatest percentage of possible sunshine in any September since the beginning of the automatic record in 1894, was 77, in 1903; the least, 41, in 1907. The greatest percentage of possible sunshine for September, 1916, was 73, at Boston, Mass. and New Haven, Conn.; the least, 42, at Northfield, Vt.

## DATES OF MISCELLANEOUS PHENOMENA.

*Halos, Lunar.*—Eastport and North Bridgton, Me., 11.

*Halos, Solar.*—Somerset, Mass., 16; New Haven, Conn., 1, 4.

*Thunderstorms* (dates and number of observers reporting on each): Maine—1st, 1; 8th, 3; 15th, 1; 18th, 2; 23d, 3. New Hampshire—1st, 1; 15th, 6; 16th, 1; 18th, 3; 23d, 7; 29th, 2. Vermont—1st, 3; 8th, 1; 15th, 2; 22d, 2; 23d, 8; 29th, 3; 30th, 1. Massachusetts—3d, 1; 5th, 1; 6th, 1; 7th, 1; 8th, 7; 9th, 1; 11th, 1; 14th, 1; 15th, 5; 18th, 11; 19th, 1; 23d, 4; 29th, 6. Rhode Island—8th, 3; 18th, 1. Connecticut—5th, 2; 8th, 13; 9th, 1; 15th, 3; 18th, 8; 22d, 1; 23d, 7; 24th, 1; 28th, 1; 29th, 9.

*Auroras.*—Cornish, North Bridgton, Me. and Northfield, Vt., 2, 26, 30; Lewiston and Madison, Me., Brookline, Durham and Plymouth, N. H., Somerset, Vt., Baker's Bridge and New Bedford, Mass., Kingston and Pawtucket, R. I., Canton, Danielson, Falls Village and Southington, Conn., 30; Millinocket, Me., 26, 30; Bethlehem, N. H., 3, 26, 30; Hanover, N. H., 8, 30; Burlington, Vt., 2, 3, 30; Hyde Park, Vt., 3; Woodstock, Vt., 15; Blue Hill, Mass., 2, 4, 22, 26, 30; Boston, Mass., 24; Concord, Mass., 2, 4, 26, 30; Fall River, Mass., 2, 4, 30; Block Island, R. I., 4, 26, 30; Greene, R. I. and New Haven, Conn., 2, 30; Hartford, Conn., 4, 30.



## Climatological Data for September, 1916.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.					Precipitation, in inches.					No. of days.					Observer.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.	Cloudy.	
Maine.																			
Bar Harbor \$	Hancock	20	30																William Miller.
Cornish	York	778	61	60.1	+1.3	90	14	34	20	39	3.88	-0.07	2.88	5	6	15	7	8	T. H. West.
Eastport	Washington	53	44	55.8	+0.6	79	14	41	20	27	2.41	-0.56	1.07	0	9	12	10	8	U. S. Weather Bureau.
Fairfield	Somerset	90	31	59.2	+1.5	81	14	37	20	30	3.35	+0.43	1.20	0	10	16	6	8	U. Paperboard Co., Inc.
Farmington	Franklin	450	19	57.0	-1.1	85	14	33	20	39	5.25	+1.69	1.60	0	13	11	9	10	State Normal School.
Gardiner \$	Kennebec	163	24	60.0	+0.2	89	14	36	20	36	3.14	-0.12	1.07	0	10	20	1	9	Samuel D. Soule.
Greenville	Piscataquis	1,140	12	56.2		81	13	35	11	37	4.23	+0.06	1.08	0	10				U. S. Weather Bureau.
Houlton	Aroostook	362	14	59.0		84	13	32	11	42	1.42	-1.38	0.38	0	5	14	7	9	Bangor & Aroostook RR.
Langtown	Franklin	1,500		54.6		83	13	28	4	44	4.02		1.03	0	11	14	10	3	Langtown Co.
Lewiston	Androscoggin	185	33	60.2	+1.0	86	14	40	20	31	2.99	-0.48	2.16	0	9	12	11	7	Union Water Power Co.
Madison \$	Somerset	257	13	58.0		85	9	35	4	34	5.12	+0.44	1.98	0	10	18	3	9	William Jardine.
Millinocket	Penobscot	386	13	58.2		83	13	31	4	39	3.38	-0.61	0.90	0	11	17	0	13	Great Northern Paper Co.
North Bridgton	Cumberland	450	23	60.0	+0.2	87	14	36	20	36	4.84	+1.11	2.03	0	11	13	10	7	C. L. Chadbourne.
Orono \$	Penobscot	129	47	59.6	+2.5	86	14	33	11	42	4.60	+1.04	1.28	0	8	20	4	6	Maine State College.
Patten	do	550	14	57.4		88 <sup>d</sup>	13	30 <sup>d</sup>	2	48 <sup>d</sup>	2.60	-1.70	1.00	0	4	12 <sup>d</sup>	2 <sup>d</sup>	12 <sup>d</sup>	Bangor & Aroostook RR.
Portland	Cumberland	99	45	58.8	-0.8	83	8	42	20	27	1.47	-1.73	0.65	0	11	15	6	9	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	7																E. M. Libby.
Rumford \$	Oxford	505	23	58.0	+0.2	84	8	47	20	31	4.35	+1.04	2.60	0	16	14	3	9	Charles A. Mixer.
Van Buren	Aroostook	510	12	55.2		82	8	29	11	45	3.33	+0.13	0.88	0	12	14	6	10	Rev. J. M. Thomas.
Winslow	Kennebec	90	21	60.4	+1.1	88	14	36	11	38	3.78	+0.56	1.28	0	8	16	9	5	Hollingsworth & Whitney.
New Hampshire.																			
Alstead Center	Cheshire	1,120	12	59.2	-0.6	80	14	35	26	29	6.54	+2.95	3.09	0	11	21	4	5	Frank Dewing.
Bethlehem	Grafton	1,470	24	56.0	-0.5	81	8	34	20	33	5.25	+1.46	1.79	0	11	16	5	9	Benjamin Tucker.
Concord	Merrimac	350	56	59.2	+0.1	87	14	36	20	35	4.87	+1.16	2.39	0	8	16	7	7	U. S. Weather Bureau.
Durham \$	Stafford	88	21	57.4	-3.1	84	1	34	20	36	4.02	+0.35	1.10	0	8	18	9	3	N. H. Agr. College.
Franklin	Merrimac	440	17	59.4	-0.5	87	14	33	20	37	6.09	+2.18	2.33	0	11	14	8	8	Dr. C. P. Webster.
Glencoff	Grafton	1,650	3																State Sanatorium.
Grafton	do	863	30	56.5	-0.4	85	14	29	20	41	3.95	+0.37	2.21	0	7	20	6	4	P. R. Kimball.
Hanover	do	603	82	58.3	+0.5	89	14	33	26	39	4.96	+1.89	1.50	0	14	4	15	11	Dartmouth College.
Keenes \$	Cheshire	506	31	58.7	-0.4	86	14	31	26	40	6.00	+2.54	2.80	0	11	17	7	6	Samuel Wadsworth.
Nashua \$	Hillsboro	125	31																C. B. Stevens.
Newton	Rockingham	126	28																W. C. Gale.
Plymouth	Grafton	500	28	57.4		84	14	33	20	37	5.20	+1.66	2.10	0	9	18	1	11	Mrs. Hattie G. Trow.
Vermont.																			
Bloomfield	Essex	.....	9	56.0		84	14	30	26	34	4.73	+0.98	1.18	0	13	12	7	11	Lynan Falls Power Co.
Burlington	Chittenden	404	9	60.2	+1.3	84	14	37	30	32	4.06	+0.71	1.33	0	12	7	11	12	U. S. Weather Bureau.
Cavendish	Windsor	910	13	55.8		85	14	30	3	51	5.23	+1.01	1.59	0	8	14	7	9	Colonial Power Co.
Chelsea	Orange	840	21	55.4	-0.8	85	14	28	26	42	4.87	+1.53	2.18	0	9	13	6	11	W. F. Dewey.
Cornwall	Addison	517	23	61.7	+0.8	85 <sup>d</sup>	14	37 <sup>d</sup>	26	35	3.86	+0.35	1.35	0	11	11	7	7	C. H. Lane.
Enosburg Falls	Franklin	601	25	59.0	+1.0	84	27	30	26	43	5.95	+2.59	1.58	0	12	10	10	10	J. W. Pomeroy.
Hyde Park	Lamoille	576	4	58.4		88	12	32	26	43	4.65		1.50	0	13	11	6	13	A. V. Wiswell.
Northfield	Washington	876	30	55.5	+0.9	85	14	32	26	43	3.00	+0.24	1.14	0	11	10	6	14	U. S. Weather Bureau.
Rutland	Rutland	.....	5	59.7		86	15	35	26	35	3.70		1.19	0	12	16	6	8	George H. Ross.
Somerset	Windham	2,096	5	53.2		80	14	29	16	33	5.22		0.99	0	13	11	15	4	Power Construction Co.
St. Johnsbury	Caledonia	711	23	58.9	+1.5	87	14	33	26	46	5.55	+1.94	2.21	0	13	14	6	10	Fairbanks Museum.
Vernon *	Windham	310	1	59.9	-0.8	86	13	38	19	39	6.84	+2.74	2.00	0	7	16	7	7	Conn. River Power Co.
Wells	Rutland	750	25	59.6	+0.8	80	7	34	26	29	3.85	+0.02	1.60	0	10	10	13	7	E. R. Pember.
Woodstock	Windsor	700	24	59.2	+2.5	90	14	31	26	50	5.93	+2.77	1.45	0	10	11	8	11	John S. Eaton.
Massachusetts.																			
Amburst \$	Hampshire	222	27	61.2	+1.0	90	14	36	20	42	5.08	+1.33	2.30	0	8	21	5	4	Mass. Agr. College.
Blue Hill	Norfolk	640	32	63.0	+2.0	85	14	41	26	26	1.66	-2.51	0.44	0	9	15	9	6	Blue Hill Observatory.
Boston	Suffolk	124	46	65.0	+2.3	90	14	44	30	28	1.90	-1.29	0.62	0	8	14	12	4	U. S. Weather Bureau.
Chestnut Hill \$	do	124	36	64.2	+1.3	91	14	39	12	36	1.45	-2.47	0.69	0	6	22	0	8	Met. Water Board.
Clinton \$	Worcester	370	20	61.4		84	14	40	12	31	4.05		2.53	0	8				Do.
Concord \$	Middlesex	139	26	60.5	-0.5	87	14	34	12	40	2.16	-1.29	0.85	0	6	16	11	3	Fred A. Tower.
Fall River	Bristol	200	50	63.8	-0.1	85	8	41	30	22	1.28	-1.96	0.54	0	8	11	17	2	C. V. S. Remington.
Fitchburg	Worcester	550	33	62.1	+0.1	90	14	33	17	36	3.48	-0.20	2.19	0	9	18	7	5	Dr. A. P. Mason.
Framingham \$	Middlesex	160	36	63.8	+1.8	87	8	37	20	35	1.69	-2.02	0.63	0	7				Met. Water Board.
Lawrence \$	Essex	51	32	62.3	+0.5	90	14	38	12	37	2.70	-0.45	1.15	0	8	11	16	3	Essex Company.
Lowell \$	Middlesex	100	31	63.8	+1.8	85	14	40	12	34	3.66	+0.03	2.12	0	6				Props. Locks & Canals.
Nantucket	Nantucket	47	30	63.5	+0.7	82	14	49	12	22	1.44	-1.29	0.71	0	7	15	11	4	U. S. Weather Bureau.
New Bedford	Bristol	88	104	63.8	+1.9	82	8	45	30	19	1.68	-1.80	0.91	0	9	23	3	4	City Engineer.
Plymouth	Plymouth	50	31	59.9		81	8	41	20	27	2.47	-1.09	0.77	0	10	19	6	5	Miss L. B. Knapp.
Provincetown	Barnstable	40	29	64.2	+0.4	82	14	47	20	24	2.62	-0.69	1.05	0	6	20	4	6	Gideon Bowley.
Rockport \$	Essex	25	14	61.8		83	7	43	26	30	2.30		1.12	0	8	22	3	5	U. S. C. G. Station.
Rutland \$	Worcester	1,160	14	60.0		84	14	32	30	34	4.08		2.55	0	7	2	3	5	State Sanatorium.
Springfield	Hampden	199	6	64.2	+1.2	92	8	39	20	37	4.54	+1.21	1.72	0	8	17	8	5	U. S. Army.
Turners Falls \$	Franklin	200	30	59.3	-1.5	84	8	40	3	31	2.98	-0.61	1.18	0	9	17	2	11	Turners Falls Co.
Westboro	Worcester	298	42	64.0	+1.5	86	8	34	12	34	2.32	-1.26	1.18	0	5				Miss E. W. Newcomb.
Williamstown \$	Berkshire	711	35	59.4	+0.4	80	1	38	17	31	5.20	+1.95	2.00	0	10	14	11	5	Williams College.
Worcester	Worcester	518	24	64.5	+2.6	88	8	44	20	27	3.94	+0.43	1.92	0	10	14	11	5	G. W. Swan.
Rhode Island.																			
Block Island	Newport	26	36	63.3	-0.8	81	8	44	30	18	0.82	-2.18	0.43	0	8	18	4	8	U. S. Weather Bureau.
Bristol \$	Bristol	53	30	63.1	-0.6	77	8	47	20	20	1.24	-1.89	0.73						



Daily Precipitation for September, 1916.

Stations.	Watersheds.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Maine.																																	
Ashland	St. John	.09	1.31			.25			.62							.14	.51		.02	.12		.07			.35						.90	1.40	
Bar Harbor	Coast																																
Cambridge	Kennebec																																
Cornish	Saco		.03	.02	T.	.15										2.88			.09					.71								3.88	
Danforth	Penobscot		.75	*	.15											1.50			.25						.57						.62	3.44	
Eastport***	Coast		.15	.49	.09	T.	.01			.01		T.				1.07			.12					.28						.19	2.41		
Eustis	Kennebec		.30	.28	.31	.01			.28	.03						1.20	.50		.07	.03				.02	.40	.03	.03					4.07	
Fairfield	do		.05	.08	.06	.04	T.		.40	.30						.16	.61		.45											1.20	3.35		
Farmington	do		.16	.14	.07	.04	T.		.76	.10						1.60	.64		.02	.14				.67	.48					.43	5.55		
Gardiner	do			.03	.01	.04	T.			.10						.52	.73								.03	.02					1.07	3.14	
Greenville***	do		.22	.34	.28	.11			.53							.88	.20		.22					.59					T.	.86	1.23		
Houlton	St. John		.38	.10												.32								.27						.35	1.42		
Howe Brook	Penobscot	.70		.08	.06				.10	.06						.50			.27	.12	.08			.04						1.00	3.01		
Lauretown	Kennebec		.51	.31	.13	.18	.86									1.03	.46		.15				.01	.35					.03		4.02		
Lewiston	Androscoggin		.07	.02		.03			T.							1.57	.59		.09	T.				.17	.04					.41	2.99		
Madison	Kennebec		.12	.19	.10	.13			.68							1.92			.26				.03	1.08						.55	5.12		
Millinocket	Penobscot		.30	.09	.27		.26		.19							.63			.22					.31					.01	.90	3.38		
North Bridgton	Saco	T.		.10	.02		.02									2.03	.78		.20	.13			T.	1.28	.07				.01	.26	4.84		
Orono	Penobscot		.10		.52		.04		1.28							1.00	.95					.45		T.	.53					1.00	7.73	4.60	
Patten	do			.20			.40									1.00							T.										
Portland***	Coast		.02		T.	T.	.19		.01							.63	.02		.09	.12				.03	.01					.08	.27	1.47	
Presque Isle	St. John		.01	.23	.06	T.	T.		.35							2.58	.02		.08	T.				.72						.15	.15	4.35	
Rumford	Androscoggin		.04	.28	T.	.09		.48	.08			.09				.38			.43	.08		.12			.23					.33	.43	3.33	
Van Buren	St. John																																
Winslow	Kennebec		.03	.05	.07	.04		.90								.91			.50											1.28		3.78	
New Hampshire.																																	
Alstead Center	Connecticut		.25			T.	.44	.02	T.	.05						3.00	.62		.15	.02			T.	.87	.04				T.	.99		6.54	
Bethlehem	do		.79		.11	.02			.12							1.15	.36		.19				T.	.38	.34	T.				.22	1.57	5.25	
Brookline	Merrimack						.62	.01								2.62			.41					.13						.49		4.19	
Concord***	do	.01	.16			T.	.52	.01								2.39			.17					.69						.42		4.57	
Durham	do		.06				.62			.04						.95	1.00		1.16						.03						.22	4.02	
Franklin	do		.05		T.	.02	.69	.02	T.	T.			T.			2.33	.52		.56	T.				.53	.06					.45	.88	6.09	
Gloucester	do						.03	.55								2.21			T.				T.							.04	.70	3.95	
Grafton	Connecticut	T.	.12		T.	.05	.28		.11	.12	T.	T.		T.	T.	1.74	.13	T.	.15	.01				.30					.77	.02	.01	1.29	4.16
Hannover	do		.23			T.	.48	.02	T.	.05						2.80	.45		.24					.51	.04	T.				.80	.38	6.10	
Kennebec	Merrimack																																
Nassau	do						.66			.11																							
Newton	do	T.								.30																							
Plymouth	do					T.	.17		T.	.30						2.10	.61		.03						.46	.63					.05	.85	5.20
Vermont.																																	
Blairfield	Connecticut		.81		.07	.08		1.02	.07							.77	.44		.18	.02			.03	.12	.01						1.18	4.73	
Burlington***	Champlain	.03	.39		.05	.02		.04		T.						1.33			.15					.42	.35	T.	T.		T.	.08	1.12	1.10	4.60
Cavertis	Connecticut						.42					T.				1.44	.28		.05				.01	.61					T.	.150	.85	5.32	
Chelsea	do	.38	.09					.20								1.40			.05				.20	.22					T.	2.18	.32	4.57	
Conwall	Champlain	.03	.10			.05		.05								1.35	.05		.15				.05	.42	.15	T.			T.	.13		3.26	
Enosburg Falls	do		1.47		.05	.25		.05								.70	.06		.28				.13	1.58	.02				T.	.43		3.95	
Hyde Park	do		.68		.15	.24		.02								1.50	.30		.12	.02			.13	.22	.04	T.			T.	.39	.77	4.03	
Northfield***	Champlain	T.	.33		.01	.04	T.	.05								1.08			.10				.09	.11	.01				T.	1.13	.01	3.00	
Rutland	do		.15				.32	T.		.11						1.15	.61		.10		.05		.01	.10	.31	.04	.01				.75	3.70	
Somerset	Connecticut	*	.95			.60	.05		.06							.87	.99		.12				.01	.37	.39	.04	.01				*	5.22	
St. Johnsbury	do		.48		.06	.25	T.	.50	.30							.60	.38		.12	.11			T.	.27	.04					.2	2.21	5.55	
Vernon	do				.36			.63								1.45	2.00		.28		.11		T.	.72						1.40		6.81	
Wells	Champlain		.15			T.	.31		T.							1.60	.15		.05				.05	.35	.38	T.			T.	.35	.46	3.85	
Woodstock	Connecticut		.13			.43			.18							1.45	.29		.12					.86		.02				1.03	1.42	5.93	
Massachusetts.																																	
Amherst	Connecticut					.24	.01	.04								2.37			.10	.01				1.12					T.	1.26		5.08	
Ashland	Merrimack		.01			*	.28	.20								.67			.22					.01						.11		1.50	
Bakers Bridge	do					.60			.19							.78	.30		.08		.22			.12								2.21	
Bedford	do					.81	T.		.19							.74															.20	2.13	
Blue Hill	Coast					.41	T.		.12							.39	.08		T.	.14										.05	.44	1.66	
Boston***	do	T.	.01			.02	.60		T.	.10						.62	.01		T.	.25											.26	.14	1.90
Brockton	Coast																																
Chestnut Hill	do	T.		.21	.06	*	.42	.18								.69			.12												.24		1.45
Clinton	Merrimack					T.	.69	T.	.16							* 2.53			.44					.02							.48		4.05
Concord	do	T.				T.	.69	T.	.24							.68	.17					.22									.16	2.16	
Fall River	Coast					T.	.05	.01	.06							.54						.19		.01						.25	.12	1.28	
Fitchburg	Merrimack					* .35	.01	.06								2.19			.30	.11				.04						.05	.27	3.48	
Framingham	do					* .51		.15								.60						.32								.14		1.69	
Haverhill	do					.63	.02	.12								.42	.40					.24										1.59	
Hingham	Coast	T.				.31	T.	T.	.03							.96														.10		.84	2.14
Hyannis	do		.02			.03		.43								1.12			.02												2.01	3.63	
Jefferson	Merrimack					.26		.14								2.86						.50									.55	4.81	
Lake Cochituate	do				</																												

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## Daily Temperatures for September, 1916.

Stations.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean
Maine.																																	
Cornish	Maximum	85	80	68	68	62	60	77	86	75	76	73	75	83	90	72	69	67	70	65	71	79	73	69	68	69	70	80	81	81	75	73.9	
	Minimum	51	51	37	41	51	51	54	65	55	43	39	40	46	51	55	46	36	39	40	34	45	41	57	48	39	36	43	46	63	45	46.3	
Eastport	Maximum	62	64	60	62	58	55	63	66	62	64	63	65	72	70	62	59	64	63	56	64	65	65	62	66	63	59	65	71	67	59	63.5	
	Minimum	50	49	44	44	48	47	51	53	50	47	45	48	53	52	53	52	46	46	45	41	50	48	50	50	46	43	45	50	55	45	48.2	
Farmington	Maximum	79	70	57	58	59	58	73	81	68	72	70	72	80	85	70	63	67	63	64	72	76	67	66	65	54	62	72	78	71	65	45.1	
	Minimum	52	55	40	33	45	50	53	62	50	42	37	44	47	52	57	53	37	35	35	33	38	38	65	40	40	40	43	47	56	45	46.0	
Greenville	Maximum	76	68	54	57	63	52	71	74	66	64	69	76	81	78	67	58	66	62	54	62	77	68	60	59	51	58	75	80	70	63	46.5	
	Minimum	51	50	41	35	45	42	51	60	52	44	35	47	53	57	57	51	43	36	41	36	44	45	54	50	44	40	38	46	58	44	47.5	
Millinocket	Maximum	79	73	51	54	64	60	67	75	69	67	70	74	83	79	73	62	67	64	58	64	72	69	69	63	59	62	76	79	75	67	68.8	
	Minimum	55	53	43	31	46	39	54	61	57	40	31	51	53	58	57	55	39	31	46	38	43	47	52	54	49	44	43	47	59	48	47.5	
Orono	Maximum	80	79	69	66	60	59	66	71	76	68	75	74	83	86	85	70	68	68	65	67	75	75	70	67	65	64	77	78	77	70	71.7	
	Minimum	54	61	41	28	37	41	54	59	58	39	32	39	50	53	59	54	38	36	46	37	49	47	54	55	44	40	41	54	59	53	47.4	
Portland	Maximum	75	72	63	61	59	56	65	81	70	69	62	68	74	83	64	63	62	66	59	69	70	63	60	64	67	74	70	70	60	60	50.6	
	Minimum	55	52	46	54	52	52	56	63	55	57	45	47	52	59	57	51	45	43	45	42	50	52	57	49	45	42	51	54	58	43	44.5	
Presque Isle	Maximum	76	70	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60.0	
	Minimum	50	48	34	30	38	38	42	52	42	36	35	35	40	42	42	36	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35.0	
Rumford	Maximum	50	50	42	38	51	53	56	61	52	46	41	48	50	57	60	46	42	41	39	37	46	48	50	49	47	45	44	53	59	41	48.7	
	Minimum	50	50	42	38	51	53	56	61	52	46	41	48	50	57	60	46	42	41	39	37	46	48	50	49	47	45	44	53	59	41	48.7	
Van Buren	Maximum	67	64	54	63	67	60	42	52	66	65	67	61	76	75	70	63	65	67	55	55	69	70	65	65	58	45	76	74	73	59	65.8	
	Minimum	55	47	41	32	44	35	55	60	51	40	29	50	51	53	48	54	35	40	35	31	37	42	51	52	42	42	29	54	59	43	44.5	
New Hampshire.																																	
Alstead Center	Maximum	75	72	64	72	72	58	78	77	71	69	72	69	76	80	70	66	62	62	56	56	67	65	67	62	57	64	76	74	78	57	68.5	
	Minimum	53	58	42	48	57	53	55	57	54	46	47	41	52	55	61	52	38	44	44	39	45	51	55	47	47	55	54	55	56	43	49.9	
Bethlehem	Maximum	79	79	57	54	57	59	76	81	67	67	70	71	78	81	72	65	63	55	56	63	73	64	63	63	57	59	76	77	65	60	66.6	
	Minimum	51	49	36	37	50	49	54	65	47	40	40	42	46	54	60	41	36	42	38	34	37	43	53	47	42	35	43	51	52	40	45.5	
Concord	Maximum	80	72	63	74	62	57	80	85	71	74	69	75	82	87	70	67	65	67	59	71	75	71	65	63	60	66	78	79	79	56	70.7	
	Minimum	49	52	40	46	52	52	56	68	52	45	42	40	47	52	58	46	38	41	38	36	43	48	56	47	46	45	46	52	56	42	47.7	
Franklin	Maximum	79	71	65	70	61	57	81	84	71	74	72	76	84	87	72	67	67	66	60	70	75	63	66	63	59	66	78	80	79	67	71.2	
	Minimum	49	56	38	44	49	51	55	65	55	42	41	41	47	51	56	53	37	42	40	33	43	44	57	45	45	41	44	47	63	45	47.8	
Hanover	Maximum	80	72	64	67	61	58	83	83	70	75	74	78	84	88	69	66	68	56	58	71	75	69	67	61	60	66	80	78	77	57	70.5	
	Minimum	46	53	36	49	50	52	56	68	53	39	39	39	43	50	57	49	36	41	40	37	41	44	55	43	46	33	45	50	56	42	46.1	
Nashua	Maximum	76	69	60	63	63	60	71	81	73	70	68	73	79	84	70	65	63	60	55	67	70	65	64	61	60	61	74	75	76	70	68.3	
	Minimum	47	57	41	38	46	52	56	65	55	39	40	41	48	47	55	51	35	43	43	33	44	45	57	44	41	41	40	53	62	45	46.6	
Plymouth	Maximum	76	69	60	63	63	60	71	81	73	70	68	73	79	84	70	65	63	60	55	67	70	65	64	61	60	61	74	75	76	70	68.3	
	Minimum	47	57	41	38	46	52	56	65	55	39	40	41	48	47	55	51	35	43	43	33	44	45	57	44	41	41	40	53	62	45	46.6	
Vermont.																																	
Burlington	Maximum	82	69	63	60	12	70	82	79	64	69	75	74	80	84	70	63	66	58	55	67	74	69	74	60	57	65	78	77	72	52	69.0	
	Minimum	64	48	45	55	58	63	61	46	43	43	55	58	61	58	44	39	44	49	57	57	52	50	47	41	59	63	52	37	55	41	69.9	
Enosburg Falls	Maximum	81	75	69	58	69	72	86	78	64	68	77	76	80	80	75	65	68	64	56	66	76	69	72	56	56	56	84	82	75	55	69.9	
	Minimum	51	54	31	38	54	55	58	63	43	38	34	55	49	57	63	41	34	38	41	49	54	54	49	50	40	44	65	55	42	48	48.2	
Northfield	Maximum	83	69	60	60	62	57	78	89	64	69	70	76	85	85	62	65	63	53	51	65	74	65	65	58	54	64	79	79	75	52	67.7	
	Minimum	47	43	36	39	49	52	55	58	41	34	33	40	42	43	56	39	34	42	38	46	40	42	48	44	38	62	43	50	52	34	43.8	
St. Johnsbury	Maximum	83	78	64	60	70	63	79	89	75	72	76	79	86	87	65	69	70	55	55	68	79	71	65	63	61	64	81	81	80	64	71.1	
	Minimum	46	56	36	37	51	54	57	70	49	40	36	41	46	41	56	50	36	42	38	39	51	56	45	44	33	41	49	60	45	46	46.4	
Wells	Maximum	76	72	62	72	68	68	89	76	72	73	71	79	74	80	74	65	65	60	58	65	72	56	68	60	56	62	76	76	75	55	68.0	
	Minimum	56	56	36	46	56	56	62	69	54	43	41	50	50	56	65	51	36	50	40	56	48	56	47	46	34	55	60	55	40	50	50.0	
Massachusetts.																																	
Amherst	Maximum	86	75	68	76	67	59	84	86	74	76	75	78	84	90	74	68	67	73	63	73	73	75	71	65	64	71	84	79	72	59	73.3	
	Minimum	48	47	38	47	58	53	68	70	60																							





Scale of Shales

- 0 to 2 inches.
- 2 to 4 inches.
- 4 to 6 inches.
- 6 to 8 inches.
- Over 8 inches.



Daily Precipitation for September, 1916—Continued from page 69.

Stations.	Watersheds.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
<i>Rhode Island.</i>																																	
Block Island ***	Coast		T.					.12	.01	.42						.07	.01			.06											.10	.03	0.82
Bristol	do		T.				.01	.02		.12						*	.73			.20										*	.16		1.24
Greene	do		.05				.03			.19						.37	.07			.40										.22			1.33
Hope Valley	do																																
Kingston	do							.04		.15						.43				.32											.11		1.05
Narrag'sett Pier ***	do		.05					.28		.25						.48	.11			.38								T.	T.		.10		1.65
Pawtucket	do		T.				.02			.15						*	.38			.19				T.						*	.09		0.83
Providence **	do		.04			T.	.08	.02	.01	.07						.36	.02		T.	.16				T.		T.				.08	.02		0.86
Wallum Lake	do						.41	.45	.90							.71														.71			3.17
<i>Connecticut.</i>																																	
Bridgeport	Coast		.02			.04	.10	T.	.15	.26						.51	T.		.10	.84				.23						.77	.04		3.06
Canton	Connecticut					.23		.28								1.30			.74				.18					T.		1.47			4.20
Colchester	Coast		.09							.86						.52	.09			.28			.05							.11			2.00
Cream Hill	Housatonic.		.01				.45		.35							2.15	.20		.18				.66			.05				1.80			5.85
Danielson	Coast							.05		.35						.50							1.05										1.95
East Hartland	do				.33			.05								1.82	1.41		.20				.58							1.16			5.55
Falls Village	Housatonic.				.45			.35								2.84			.15				.61					.03		1.80			6.23
Hartford **	Connecticut		T.			T.	.04	T.	.04	.13						1.61			.42	.12			.03					T.		1.07			3.46
Hawleyville	Housatonic.																																
Lake Konomocott	Coast					.05			.35								.30			.05											.60		1.35
New Haven ***	do		T.			T.		.04	.18	.24						.32			.50	.08			.24							.94			2.54
New London	do							T.	.07	.15									.60											*	.80		1.62
N. Grosvenor Dale	do						.46	.11	.91							.89			.40				.07				.07					.57	3.41
Norwalk	do		.02		.03			.45	.35							.90			*	.65			.11							1.14			3.65
Southington	do								.28							1.60	.70		.60				.05	.05						.25	1.50		5.00
Storrs	Coast				.04	.08		.20								.75			.63				.06								.73		2.49
Torrington	Housatonic.																																
Voluntown	Coast					.31			.40								.50		.40									.03			.18		1.82
Waterbury	Housatonic.					.05			.12							*	.82		*	.71				.13						1.14			2.97

## Special River Rainfall Stations.

Maine.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations.

T. Precipitation is less than 0.01 inch rain or melted snow.

\*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

† Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton

Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.; Moss Brook, Wendell Depot, Mass.; Priest Brook, Winchendon, Mass.; Sewall's

Falls, Concord, N. H.

## Comparative Data for New England for September.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.								
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888...	57.7	88	18	8.29	.....	14	0	7	8	15	.....	sw.	8.9	68	ne.	1903....	61.0	95	23	1.60	3.65	5	0	19	7	4	77	sw.	7.9	60	s.
1889...	59.3	90	17	4.11	.....	13	0	8	7	15	.....	ne.	10.1	66	ne.	1904....	57.9	84	18	5.31	6.05	11	0	12	8	10	59	sw.	8.6	84	nw.
1890...	60.4	86	20	5.40	.....	13	0	10	7	13	.....	sw.	8.3	46	sw.	1905....	58.9	89	22	5.41	5.19	10	0	13	6	11	58	nw.	7.5	48	nw.
1891...	63.8	92	30	2.28	.....	10	0	13	10	7	.....	sw.	7.6	48	ne.	1906....	61.8	97	24	2.36	2.41	7	0	18	7	5	69	sw.	8.7	50	nw.
1892...	58.5	88	27	2.24	.....	7	0	18	7	6	.....	sw.	9.0	52	sw.	1907....	60.8	93	23	7.75	4.62	13	0	8	8	14	41	sw.	8.5	58	s.
1893...	56.1	86	26	2.38	.....	12	0	11	9	10	.....	nw.	9.5	53	s.	1908....	62.5	95	23	1.09	2.10	3	0	19	6	5	64	sw.	8.3	53	s.
1894...	62.6	92	22	3.46	4.50	9	0	9	9	12	52	sw.	9.1	60	ne.	1909....	59.8	86	25	5.02	4.87	10	0	12	7	11	50	sw.	9.2	54	ne.
1895...	62.8	100	24	2.45	2.16	8	0	14	10	6	65	sw.	9.2	63	nw.	1910....	59.8	85	26	2.85	2.84	10	0	13	8	9	54	nw.	8.2	43	ne.
1896...	59.0	96	24	6.16	8.31	13	0	9	8	13	46	sw.	11.4	75	ne.	1911....	59.1	88	21	3.34	1.72	11	0	12	9	9	54	nw.	9.8	48	ne.
1897...	59.4	97	25	2.19	2.56	7	0	16	8	6	63	nw.	12.3	64	nw.	1912....	59.2	92	25	3.20	2.43	10	0	10	9	11	47	sw.	8.8	44	ne.
1898...	62.6	95	25	2.95	2.95	8	0	15	8	7	60	sw.	8.6	55	ne.	1913....	58.6	96	19	3.25	4.02	8	0	16	6	8	59	sw.	9.8	51	s.
1899...	58.9	88	23	4.68	6.50	10	0	14	7	9	54	sw.	10.0	54	e.	1914....	60.2	97	18	0.98	1.70	5	0	17	8	5	71	nw.	8.8	48	w.
1900...	62.6	99	25	2.98	3.12	8	0	15	8	8	62	nw.	8.3	65	sw.	1915....	63.4	96	25	1.79	2.78	6	0	17	7	6	63	nw.	9.4	62	nw.
1901...	61.6	94	29	3.31	3.48	10	0	16	5	9	61	sw.	7.8	69	s.	1916....	60.3	93	28	3.53	3.09	9	0	16	7	7	64	sw.	9.6	48	nw.
1902...	61.6	95	27	4.49	3.03	12	0	12	6	12	51	ne.	7.9	40	e.																



U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

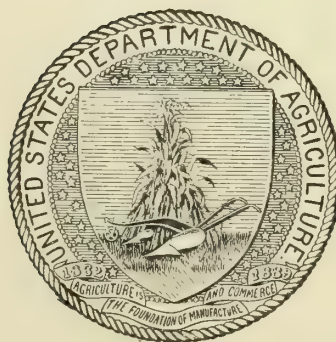
NEW ENGLAND SECTION

OCTOBER, 1916

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BY  
JOHN W. SMITH  
METEOROLOGIST

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
NOVEMBER 20, 1916



Departure of the Mean Temperature from the Normal, October, 1916.





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

VOL. XXVIII. BOSTON, MASS., OCTOBER, 1916. No. 10.

## GENERAL SUMMARY.

The month was warmer than normal, with but little more than one-half the usual amount of precipitation. The average temperature, although lower than that of any other October for several years past, was nearly  $2^{\circ}$  above the normal, the excess ranging from a few tenths of a degree in Rhode Island, to slightly more than two degrees in Massachusetts and Connecticut. The highest temperature recorded occurred generally about the middle of the first decade, and the lowest of the month near the end of the second decade. There were no marked extremes in either the maximum or minimum temperatures. The precipitation was below the normal throughout the section, the greatest deficiency being in Massachusetts and Connecticut, and the least in Maine and Rhode Island. During the first twelve days of the month only scattered light showers occurred, except in the northern portion of the section where small amounts were general on the 9th. From the 13th to the 21st rain was frequent and copious, the storm of the 19th-21st giving from 1 to 2 inches at nearly all stations. After the 21st there was little precipitation. The percentage of possible sunshine was the greatest for the month since 1905. The conditions of the month as a whole were unusually favorable for the maturing and harvesting of all crops.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 14 stations reporting, was 30.13 inches, which was .09 inch above the normal for the month, and .05 inch above the mean for October, 1915. The highest monthly mean was 30.14 inches, at a number of stations; the lowest, 30.09 inches, at Eastport, Me. The highest recorded was 30.64 inches, at Eastport, Me. on the 19th; the lowest, 29.35 inches, at the same station on the 17th. The monthly range for the section was 1.29 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 14 stations, was  $50.5^{\circ}$ , which was  $0.8^{\circ}$  below the mean for October, 1915. During the past 28 years the average October temperature has been lower in 17 years and higher in 11 years than that of the present month. The highest average October temperature during this period was  $54.3^{\circ}$ , in 1913; the lowest,  $44.2^{\circ}$ , in 1888. The average temperature of the several States of the section was as follows: Maine,  $47.8^{\circ}$ ; New Hampshire,  $49.1^{\circ}$ ; Vermont,  $47.6^{\circ}$ ; Massachusetts,  $52.9^{\circ}$ ; Rhode Island,  $53.0^{\circ}$ ; Connecticut,  $53.1^{\circ}$ . The average temperature for the section was  $1.8^{\circ}$  above the normal. The departures from the normal for the several States were as follows: Maine,  $+1.3^{\circ}$ ; New Hampshire,  $+1.5^{\circ}$ ; Vermont,  $+1.3^{\circ}$ ; Massachusetts,  $2.7^{\circ}$ ; Rhode Island,  $+0.4^{\circ}$ ; Connecticut,  $+2.1^{\circ}$ . The highest monthly mean was  $57.2^{\circ}$ , at New London, Conn.; the lowest,  $45.5^{\circ}$ , at Van Buren, Me. The highest recorded was  $87^{\circ}$ , at Ashua, N. H. on the 5th; the lowest,  $17^{\circ}$ , at Voluntown, Conn. on the 18th. The greatest local monthly range was  $67^{\circ}$ , at Voluntown, Conn.; the least,  $31^{\circ}$ , at Nantucket, Mass. The greatest daily range was  $54^{\circ}$ , at Voluntown, Conn. on the 3d.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 13 stations reporting, was 76 per cent, which was 2 per cent below the normal for the month, and 4 per cent below the average of October, 1915. The

highest monthly average was 82 per cent, at Nantucket, Mass. and Block Island, R. I.; the lowest, 70 per cent, at Portland, Me.

## PRECIPITATION.

The average for the section, as determined from the records of 79 stations, was 1.94 inches, which was 0.83 inch below the average for October, 1915, and the smallest amount for the month since 1910. During the past 28 years the average October precipitation has been greater in 23 and less in 5 years than that of the present month. The greatest October precipitation during this period was 7.34 inches, in 1890; the least, 1.10 inches, in 1897. The average for the several States was as follows: Maine, 2.72 inches; New Hampshire, 1.29; Vermont, 1.96; Massachusetts, 1.54; Rhode Island, 2.66; Connecticut, 1.76. The average for the section was 1.60 inches below the normal for the month. The departures from the normal for the several States were as follows: Maine,  $-0.80$  inches; New Hampshire,  $-1.89$ ; Vermont,  $-1.07$ ; Massachusetts,  $-2.14$ ; Rhode Island,  $-1.48$ ; Connecticut,  $-2.12$ . The greatest monthly amount was 4.70 inches, at Patten, Me.; the least, 0.92 inch, at Lawrence, Mass. The greatest amount in 24 hours was 2.22 inches, at Winslow, Me. on the 19-20th. The average number of days with .01 inch or more of precipitation was 7, 2 less than the normal number for the month.

## WIND.

The prevailing direction of the wind was from the southwest; the normal direction for the month is from the northwest, as determined from the records of the last 29 years. The average monthly wind movement for the section, 14 stations reporting, was 8,283 miles. The greatest monthly wind movement was 14,215 miles, at Blue Hill Observatory, Hyde Park, Mass.; the least, 3,772 miles, at Concord, N. H. The average hourly velocity was 11.1 miles, which was 0.9 mile above the average for October, 1915, and 0.6 mile above the normal for the month. The highest recorded velocity was 66 miles per hour from the west, at Blue Hill Observatory, Hyde Park, Mass. on the 17th. This is about the usual maximum velocity for October.

## SUNSHINE AND CLOUDINESS

The average number of clear days for the section was 17; partly cloudy, 7; cloudy, 7; the normal for the month is 12 clear, 8 partly cloudy, and 11 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 64, which was 14 per cent above the average for October, 1915, and 11 per cent above the normal for the month, as determined from the records of the past 23 years. The greatest percentage of possible sunshine in any October since the beginning of the automatic records in 1894, was 69, in 1905; the least, 29, in 1913. The greatest percentage of possible sunshine for October, 1916, was 72, at Providence, R. I. and New Haven, Conn.; the least, 56, at Burlington, Vt.

## DATES OF MISCELLANEOUS PHENOMENA.

*Halos, Solar.*—Cornish, Me., 4; Blue Hill, Mass., 3, 4, 15, 23, 30; Boston, Mass., 3, 8, 15, 16; Hartford, Conn., 3, 18, 29, 30; New Haven, Conn., 3, 15, 23, 24.

*Halos, Lunar.*—Concord, N. H., 3, 8; Northfield, Vt., 12; Woodstock, Vt., 4, 8, 16; Boston, Mass., 7, 8.

*Auroras.*—North Bridgton, Me., 5; Presque Isle, Me., 5, 6; Bethlehem, H. H., 5, 6; Northfield, Vt., 1, 5, 6; Woodstock, Vt., 1, 2, 7, 15, 24, 30; Blue Hill, Mass., 6.

*Thunderstorms* (dates and number of observers reporting on each): Maine—9th, 1; 15th, 1. New Hampshire—9th, 1. Vermont—19th, 2; 20th, 3; 21st, 5. Massachusetts—9th, 2. Rhode Island—17th, 1.



## Climatological Data for October, 1916.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				No. of days.				Observer.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.		Cloudy.	Prevailing direction of wind.
Maine.																				
Bar Harbor	Hancock	20	30																William Miller.	
Cornish	York	778	61	50.0	+2.5	81	5	22	18	42	2.62	-1.28	1.79	0	7	13	11	7	sw.	T. H. West.
Eastport	Washington	53	44	48.4	+1.8	73	6	30	18	29	2.73	-1.12	1.21	0	8	11	9	11	s.	U. S. Weather Bureau.
Fairfield	Somerset	90	31	49.2	+2.1	76	5	27	18	34	2.49	-0.16	2.13	0	4	17	9	5	nw.	U. Paperboard Co., Inc.
Farmington	Franklin	450	19	46.2	+1.4	79	5	22	19	43	2.29	-0.92	1.30	0	8	15	7	9	nw.	State Normal School.
Gardiner	Kennebec	163	24	50.1	+0.9	82	4	26	18	41	2.59	-1.38	1.71	0	9	18	3	10	nw.	Samuel D. Soule.
Greenville	Piscataquis	1,140	12	45.7		81	5	22	19	40	2.87	-0.49	1.00	0.5	7				w.	U. S. Weather Bureau.
Houlton	Aroostook	362	14	49.8		79	7	24	28	46	3.16	+0.32	1.25	0	5	12	8	11	w.	Bangor & Aroostook RR.
Langtown	Franklin	1,500	33	44.4		80	5	18	12	49	1.66		0.50	0	7				nw.	Langtown Co.
Lewiston	Androscoggin	185	33	49.0	+1.8	80	5	28	29	36	2.47	-1.21	1.20	0	7	13	11	7	sw.	Union Water Power Co.
Madison	Somerset	257	13	44.9		81	6	25	19	39	2.19	-2.04	1.32	0	7	21	3	7	nw.	William Jardine.
Millinocket	Penobscot	386	13	46.3		82	5	21	19	46	3.34	-0.37	1.52	0	10	19	0	12	w.	Great Northern Paper Co.
North Bridgton	Cumberland	450	23	49.6	+0.5	83	5	26	29	42	2.15	-1.12	1.20	T.	8	17	5	9	s.	C. L. Chadbourne.
Orono	Penobscot	129	47	49.6	+3.4	81	5	24	19	40	1.85	-2.17	0.71	0	6	20	6	5	sw.	Maine State College.
Patten	do	550	14	49.2		85	5	20	18	46	4.70	+0.59	2.00	0.5	5	11	1	14	ne.	Bangor & Aroostook RR.
Portland	Cumberland	99	45	50.4	+1.3	79	6	32	18	31	1.29	-2.37	0.87	0	10	15	7	9	sw.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	7	44.0		80	5	20	28	44	2.37	-0.85	0.80	T.	7	18	2	11	w.	E. M. Libby.
Rumford	Oxford	505	23	47.4	+0.7	77	5	27	19	35	1.96	-1.14	1.26	T.	5	22	2	7	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	12	43.5		79	5	22	19	44	3.27	-0.22	1.07	T.	9	13	6	12	w.	Rev. J. M. Thomas.
Winslow	Kennebec	90	21	49.6	+1.9	82	5	24	29	41	3.17	+0.03	2.22	0	7	17	10	4	w.	Hollingsworth & Whitney
New Hampshire.																				
Alstead Center	Cheshire	1,120	12	48.8	+0.5	73	5	26	18	31	1.40	-1.68	0.64	0	6	24	3	7	sw.	Frank Dewing.
Bethlehem	Grafton	1,470	24	47.1	+0.9	75	5	19	18	38	1.19	-1.81	0.52	T.	6	20	6	5	w.	Benjamin Tucker.
Concord	Merrimac	350	56	49.6	+0.9	83	5	27	27	44	1.34	-1.90	1.20	0	7	14	7	10	n.	U. S. Weather Bureau.
Durham	Stafford	88	21	49.6	+0.5	83	5	26	11	46	1.41	-1.79	0.84	0	8	19	7	5	sw.	N. H. Agr. College.
Franklin	Merrimac	440	17	49.8	+2.0	81	5	26	24	41	1.60	-1.47	1.33	T.	8	19	5	7	nw.	Dr. C. P. Webster.
Glencoff	Grafton	1,650	3																nw.	State Sanatorium.
Grafton	do	863	30																nw.	P. R. Kimball.
Hanover	do	603	82	48.4	+2.0	80	5	24	15	41	1.04	-2.10	0.43	T.	7	9	10	12	sw.	Dartmouth College.
Keenes	Cheshire	506	31	48.8	+1.2	79	5	22	18	43	1.27	-1.63	0.62	0	8	20	7	4	sw.	Samuel Wadsworth.
Nashua	Hillsboro	125	31	52.8	+3.9	87	5	26	18	50	1.01	-2.27	0.50	0	6	11	14	6	nw.	C. B. Stevens.
Newton	Rockingham	126	28	49.4	+1.0	81	5	22	18	42	1.14	-2.46	0.81	0	6	13	16	2	w.	W. C. Gale.
Plymouth	Grafton	500	28	46.5	-1.8	77	5	25	11	41	1.47	-1.76	0.80	0	5	25	0	6	w.	Mrs. Hattie G. Trow.
Vermont.																				
Bloomfield	Essex		9	45.8		78	5	19	18	43	2.01	-0.76	0.49	T.	9	17	6	8	s.	Lyman Falls Power Co.
Burlington	Chittenden	404	9	48.2	+1.3	76	5	27	18	32	1.43	-1.73	0.38	T.	10	10	11	10	s.	U. S. Weather Bureau.
Cavendish	Windsor	910	13	46.9		76	5	20	18	45	1.45	-1.75	0.64	0	6	18	8	5	n.	Colonial Power Co.
Chelsea	Orange	840	21	46.2	+1.0	77	5	21	23	45	1.36	-1.23	0.63	0	6	16	7	8	n.	W. F. Dewey.
Cornwall	Addison	517	23	51.2	+1.5	78	4	27	18	37	1.73	-0.85	0.75	0	4	16	12	3	n.	C. H. Lane.
Enosburg Falls	Franklin	601	25	47.8	+0.5	81	5	21	18	46	2.52	-0.58	0.49	T.	9	18	5	8	nw.	J. W. Pomeroy.
Hyde Park	Lamoille	576	4	47.4		83	5	21	22	49	2.84	-0.57	0.57	T.	9	12	8	9	w.	A. V. Wiswell.
Northfield	Washington	876	30	45.8	+2.2	82	5	23	23	49	2.09	-0.39	1.03	0	8	10	13	8	se.	U. S. Weather Bureau.
Rutland	Rutland		5	49.2		84	5	25	23	47	2.59	-1.22	0	6	25	2	4	sw.	George H. Ross.	
Somerset	Windham	2,096	5	45.0		74	5	21	17	41	2.52	-1.28	0	7	17	11	3	nw.	Power Construction Co.	
St. Johnsbury	Caledonia	711	23	48.4	+2.0	81	4	22	18	47	1.65	-0.92	0.74	0	10	17	8	6	s.	Fairbanks Museum.
Vernon	Windham	310	1	50.3	+2.2	78	8	26	18	39	1.40	-2.16	1.23	0	2	18	8	5	nw.	Conn. River Power Co.
Wells	Rutland	750	25	47.7	-0.3	72	5	22	18	29	2.47	-0.49	0.83	0	6	12	12	7	sw.	E. R. Pember.
Woodstock	Windsor	700	24	46.8	+1.0	79	5	21	18	45	1.75	-1.56	0.69	T.	7	14	10	7	sw.	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	27	51.6	+2.6	84	8	26	18	43	1.01	-2.49	0.92	0	3	18	7	6	nw.	Mass. Agr. College.
Blue Hill	Norfolk	640	32	53.5	+4.0	81	8	31	18	29	1.81	-2.35	0.70	0	10	15	5	11	sw.	Blue Hill Observatory.
Boston	Suffolk	124	46	55.5	+3.2	84	8	36	18	36	0.94	-2.92	0.61	0	7	14	9	8	sw.	U. S. Weather Bureau.
Chestnut Hill	do	124	36	55.0	+4.3	83	5	31	15	40	1.27	-2.67	0.72	0	5	23	0	8	sw.	Met. Water Board.
Clinton	Worcester	370	20	51.6		79	9	29	18	40	1.28		0.98	0	5				sw.	Do.
Concord	Middlesex	139	26																sw.	Fred A. Tower.
Fall River	Bristol	200	50	54.3	+1.1	77	9	35	18	27	3.01	-1.05	2.00	0	7	12	17	2	sw.	C. V. S. Remington.
Fitchburg	Worcester	550	33	52.2	+3.1	83	5	25	18	36	0.94	-2.85	0.55	0	6	20	8	3	w.	Dr. A. P. Mason.
Framingham	Middlesex	160	36	53.2	+3.0	82	8	26	18	40	1.45	-2.36	0.91	0	6				sw.	Met. Water Board.
Lawrence	Essex	51	32	52.5	+2.5	82	8	30	18	37	0.92	-2.53	0.56	0	8	14	14	3	w.	Essex Company.
Lowell	Middlesex	100	31	53.8	+3.9	79	8	30	18	37	1.05	-2.44	0.74	0	4				sw.	Props. Locks & Canals.
Nantucket	Nantucket	47	30	54.6	+0.1	70	9	39	18	23	1.92	-1.47	0.72	0	10	12	8	1	sw.	U. S. Weather Bureau.
New Bedford	Bristol	88	104																sw.	City Engineer.
Plymouth	Plymouth	50	31	50.5		78	9	31	18	31	2.85	-1.32	1.72	0	7	19	7	8	sw.	Miss L. B. Knapp.
Provincetown	Barnstable	40	29											0	8	20	6	5	sw.	Gideon Bowley.
Rockport	Essex	25	14	53.6		78	8	33	15	31	1.11	-2.57	0.93	0	6	19	7	5	sw.	U. S. C. G. Station.
Rutland	Worcester	1,160	14	49.2		78	8	19	17	48	1.36	-0.78	0.78	0	5	25	3	3	sw.	State Sanatorium.
Springfield	Hampden	199	6	54.8	+4.0	83	6	29	18	38	1.32	-2.78	1.15	0	6	15	9	7	nw.	U. S. Army.
Turners Falls	Franklin	200	30	50.6	+0.7	75	8	28	18	33	1.41	-1.60	1.02	0	7	21	4	6	e.	Turners Falls Co.
Westboro	Worcester	298	42	55.0	+3.8	83	9	30	18	36	1.66	-2.09	1.26	0	4				nw.	Miss E. W. Newcomb.
Williamstown	Berkshire	711	35	49.4	+1.3	74	5	27	18	34	1.79	-1.40	0.52	0	7	16	12	3	nw.	Williams College.
Worcester	Worcester	518	24	54.0	+3.4	82	8	33	4	40	1.19	-2.72	0.60	0	6	13	5	3	sw.	G. W. Swan.
Rhode Island.																				
Block Island	Newport	26	36	55.1	-0.2	72	8	39	18	22	2.48	-1.63	1.							



## Daily Precipitation for October, 1916

Stations.	Watersheds.	Day of month.																															Total	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Maine.																																		
Ashland	St. John									.34				.23	.72		.04	.27		T.	.74	.04						.11	.05				2.54	
Bar Harbor	Coast																																	
Cambridge	Kennebec																		.07		1.79		.09					.06						
Cornish	Saco									.30				.29							*	.15						.10					.02	
Danforth	Penobscot		.75		*	.15				.36				*	.80			1.50			*							.10						
Eastport***	Coast									.14		T.		.08	.18			.30		.35	1.20	.29					.19						.02	
Eustis	Kennebec						T.			.36	.07	T.		.10	.25		.01	.15	.01	.08	.50	T.					.10		.03					
Fairfield	do									.17				.10							2.13	.09												
Farmington	do									.32		T.		.10	.22			.10		.20	1.30	.03						.02						
Gardiner	do									.09	.01			.02	.40			.07		.07	1.71	.17						.05						
Greenville**	do									.37				.70	.30			.18			.96	.30						.06						
Houlton	St. John									.42				.77			.22			1.25		.50												
Howe Brook	Penobscot									.44	.02			.20	1.04			.33		.02	1.03	.15						.10		.05				
Langtown	Kennebec					T.				.50				.20	.25			.10		.35	.20							.06						
Lewiston	Androskoggin									.18				.11	.10			.04		1.20	.58	.26												
Madison	Kennebec									.17	.21			.41						*	1.32	.05						.03						
Millinocket	Penobscot							.10		.31				.81	.52	.21	.12			1.52	.21	.12					.08				T.			
North Bridgton	Saco									.25				.10	.17		.03	.13	.03	1.52	.21	.12						.03						
Orono	Penobscot									.08	.14			.71						.60		.68	.17					.07						
Patten	do												1.00						.60															
Portland***	Coast									.06				.18	.06			.06		.87	.02	.01					.50		.01	.01			.01	
Presque Isle	St. John	T.								.40	T.	T.		.15	.80	T.	.10	.20		T.	.62	.10												
Rumford	Androskoggin									.41				.23				.06		1.19	.07								T.		T.			
Van Buren	St. John						T.		T.	.33	T.	T.		12	1.07		.32	.23		T.	.74	.28							.09		.04			
Winslow	Kennebec									.32				.42				.05		10	2.12	.14					.02							
New Hampshire.																																		
Alstead Center	Connecticut									.07				.03	.24			T.		.38	.64	.04											1.40	
Bethlehem	do									.36				.12			.15			.27	.25	T.											1.19	
Brookline	Merrimack									.15				.15			.16			1.00	T.	.12					.01						1.44	
Concord***	do									T.				.10	.01			.01		1.18	.02	T.					.01					T.	1.34	
Durham	do									.01	.01			.14				.11		.26	.84	.02							.02					
Franklin	do									.02				.05	.15			.01		.45	.88	.03							.01				T.	
Glencoff	do																																	
Grafton	do																																	
Hamover	Connecticut									.05	.01			.09	.07			.07		.31	.4												1.64	
Kennebec	do									.11				.17	.08			.08		.23	.62	.03							.01				1.27	
Nasarna	Merrimack													T.	.13					.27	.50	.07							.02				.02	
Newton	do									.03				.16			T.			.81	.02						.10						.02	
Plymouth	do									T.				T.	.22			.02		.34	.80	.09											1.47	
Vermont.																																		
Bloomfield	Connecticut									.33				.27	.20		.02	.18		.29	.49	.18						.05					2.01	
Burlington***	Champlain								.02	.29				.11			.11	.05		.35	.34	.08					.02	.16	T.				1.43	
Cavendish	Connecticut													.17	.05					.64	.51	.07									.01		1.45	
Chelsea	do									.06				.25						.25	.63	.15						.04					1.36	
Cornwall	Champlain									.15				.18				T.		.65	.75												1.73	
Enosburg Falls	do									.27				.34	.25		.06	.34		.39	.26	.19						.12	T.				2.52	
Hyde Park	do									.38		T.		.35	.47		.12	.20		.34	.25	.57									.16		T.	
Northfield***	Champlain									.13				.34	.04		T.	.12		.93	.34	.14	T.					.05	T.				T.	
Rutland	do										.05			.60			.10		1.22	.62														
Somerset	Connecticut									.09				*	.23		*	.92											.10		T.		T.	
St. Johnsbury	do									.08				.09	.12		T.	.11		.19	.74	.22						.06		.02		.01		
Vernon	do													.17						1.23														
Wells	Champlain									T.				.48				.07		.32	.82	.74						.03						
Woodstock	Connecticut									T.				.16			.18		.05	.43	.69	.18						.06						
Massachusetts.																																		
Amherst	Connecticut									T.				.07						.92	T.	.02						T.					T.	
Ashland	Merrimack									.22				.22			.13			.94	.01	.02						.27					.01	
Bakers Bridge††	do																	.13		.22	.45	T.						.29					1.09	
Bedford	do									.02				.02	.07					.44	.09	T.						.29						0.93
Blue Hill	Coast								.06			.11	.23		.01	.01			.70	.48	.09				T.	.11							.01	
Boston***	do									.01				.09	.13				T.	.56	.05	.03							.07				T.	
Brockton	Coast										.06			T.	.30		.03			.25	1.32	.08							.31				.03	
Chestnut Hill	do													T.						.72	.04	.13						.16					1.27	
Clinton	Merrimack									T.				.14						.98		.02							.12				.02	
Concord	do																																	
Fall River	Coast													.15	.11		.15			1.60	.43	.02							.55				3.01	
Fitchburg	Merrimack													.16	.02		.02			*.55	.10	.09						T.					0.94	
Frammingham	do													.20		</																		



## Daily Temperatures for October, 1916.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean		
Maine.																																		
Cornish	Maximum	68	70	77	77	81	80	72	75	62	54	60	62	63	55	64	65	66	56	47	78	71	65	57	62	64	66	60	62	61	67	56	65.3	
	Minimum	30	31	36	42	39	57	36	40	45	31	35	28	35	32	29	45	39	22	27	43	46	31	27	26	27	38	26	27	25	40	48	34.6	
Eastport	Maximum	56	67	61	69	73	73	55	64	53	44	52	50	53	52	58	61	60	45	51	59	58	56	47	51	52	57	50	54	47	51	53	55.9	
	Minimum	39	38	48	46	46	50	44	45	40	34	34	34	39	35	35	46	34	30	38	51	53	44	40	39	40	43	38	38	36	45	47	40.9	
Farmington	Maximum	95	68	75	76	79	75	77	71	60	50	52	53	55	62	50	40	42	62	67	57	56	55	56	55	56	60	54	52	50	52	53	59.4	
	Minimum	29	29	34	38	38	45	34	37	43	28	28	25	32	35	30	38	35	24	22	38	53	30	30	25	26	45	27	29	22	34	42	33.1	
Greenville	Maximum	56	67	76	78	81	66	65	75	60	37	48	53	50	51	58	50	54	42	39	72	68	51	53	56	55	51	48	42	47	55	53	56.7	
	Minimum	33	36	40	43	41	52	32	41	37	28	28	27	32	34	30	36	32	24	22	36	46	35	33	27	33	41	35	36	24	39	42	34.7	
Millinocket	Maximum	60	69	78	79	82	79	66	69	65	44	50	54	52	52	52	54	55	58	44	43	67	67	60	53	55	57	50	48	48	58	50	58.7	
	Minimum	33	31	38	40	36	49	30	43	38	30	32	23	27	37	30	44	32	28	21	34	58	34	30	26	28	43	33	32	25	25	41	33.9	
Orono	Maximum	61	70	78	74	81	80	74	69	68	50	53	59	56	57	61	70	65	59	48	69	69	62	95	56	58	59	55	53	52	55	55	62.7	
	Minimum	34	35	38	40	49	53	35	45	43	30	27	29	23	29	23	29	47	41	27	24	37	59	41	30	27	28	44	31	37	26	44	48	36.6
Portland	Maximum	60	65	69	69	75	79	59	77	68	47	56	49	56	54	64	65	63	49	56	65	61	58	49	52	53	59	50	57	52	54	52	59.4	
	Minimum	36	40	48	46	47	55	47	45	41	35	36	37	48	38	35	51	37	32	33	55	50	40	37	35	36	40	36	40	34	48	48	41.5	
Presque Isle	Maximum	55	70	77	78	80	71	70	65	60	40	47	50	54	52	55	51	53	43	41	66	68	60	55	56	48	54	48	40	54	55	49	57.0	
	Minimum	32	29	34	31	38	33	26	37	38	28	28	23	30	35	25	35	33	22	22	33	56	36	32	34	28	27	28	20	22	22	38	31.1	
Rumford	Maximum	59	66	72	72	77	73	67	76	51	42	52	53	55	51	58	58	58	45	44	70	70	51	51	51	51	56	54	50	50	54	58	58.0	
	Minimum	36	31	42	42	43	48	42	43	29	31	34	39	40	38	30	41	36	28	27	45	47	38	30	29	32	38	32	32	28	38	48	36.7	
Van Buren	Maximum	55	67	73	76	79	73	66	60	51	40	43	47	50	52	55	50	52	45	41	64	64	56	52	46	50	52	47	44	47	50	48	54.5	
	Minimum	32	29	34	33	35	50	28	40	30	26	30	25	29	35	28	35	31	23	22	32	52	35	27	32	30	41	30	29	27	33	37	32.5	
New Hampshire.																																		
Alstead Center	Maximum	56	63	67	65	73	72	64	72	69	47	53	57	55	54	57	58	67	43	47	68	67	54	47	44	67	53	47	58	56	66	58	58.9	
	Minimum	34	36	43	48	45	51	47	45	47	33	34	33	41	35	32	42	37	26	31	47	52	38	29	31	36	42	31	36	34	45	37	38.7	
Bethlehem	Maximum	53	63	72	74	75	70	64	73	69	40	50	56	54	52	59	55	50	57	59	71	63	58	52	56	60	54	48	45	54	57	55	58.8	
	Minimum	30	31	37	42	42	50	36	42	37	29	30	22	42	28	25	39	31	19	42	50	48	42	34	27	30	40	34	30	26	32	41	35.4	
Concord	Maximum	61	68	75	75	88	78	71	79	72	43	57	58	63	59	63	65	63	48	53	77	72	54	54	57	58	56	54	58	56	62	61	62.7	
	Minimum	35	32	35	42	39	46	40	39	40	30	29	29	44	33	31	49	38	29	29	51	46	36	29	28	30	37	27	32	30	46	51	36.5	
Franklin	Maximum	63	70	77	77	81	77	71	79	70	49	59	62	60	55	63	65	61	54	45	76	72	57	58	59	61	59	57	59	57	63	56	63.5	
	Minimum	36	32	36	42	40	45	39	38	47	35	28	29	40	38	28	46	39	28	28	45	55	32	27	26	29	45	26	29	28	38	48	36.2	
Hanover	Maximum	70	69	76	79	80	74	70	77	67	47	57	63	59	53	61	61	57	49	48	76	69	51	55	54	61	55	52	56	53	64	52	61.8	
	Minimum	30	31	35	39	40	46	40	38	42	33	27	29	35	32	24	57	38	28	28	48	47	30	24	25	29	41	29	37	26	40	42	34.9	
Nashua	Maximum	65	72	78	76	87	83	75	84	83	70	65	61	65	60	64	68	65	54	52	79	72	60	56	56	63	60	56	63	66	70	60	67.4	
	Minimum	33	34	35	42	37	53	50	38	62	36	34	29	42	40	42	28	43	26	28	50	57	36	31	29	30	49	26	28	28	42	49	38.3	
Plymouth	Maximum	59	64	72	72	77	73	66	76	67	47	54	59	59	56	56	60	60	45	42	72	67	55	50	55	56	53	50	54	58	52	59	59.6	
	Minimum	34	29	31	37	39	40	34	40	47	32	25	26	42	36	25	25	39	27	26	43	52	31	25	26	27	44	25	30	25	32	42	33.4	
Vermont.																																		
Burlington	Maximum	55	64	70	75	76	69	67	71	57	46	56	60	57	46	60	51	57	44	49	71	57	48	51	56	59	55	48	47	57	62	58	58.2	
	Minimum	31	33	38	43	45	50	39	52	36	32	44	31	41	33	35	42	37	23	49	49	42	35	29	32	35	43	41	33	32	49	48	38.3	
Enosburg Falls	Maximum	57	67	78	79	81	70	66	76	65	59	58	62	57	54	61	56	60	45	51	71	65	48	55	57	61	56	52	46	55	62	61	61.1	
	Minimum	25	28	32	37	34	48	32	40	42	35	33	25	35	33	28	38	32	21	25	48	48	37	22	27	29	43	36	31	26	46	42	34.4	
Northfield	Maximum	56	66	75	78	82	71	69	80	74	45	55	61	55	43	61	55	65	45	48	69	60	46	53	59	59	55	51	48	54	60	54	59.7	
	Minimum	26	35	30	38	33	11	32	39	35	25	39	25	10	28	24	43	34	26	26	48	37	27	23	24	27	37	31	27	27	35	37	31.8	
St. Johnsbury	Maximum	60	73	80	81	79	75	72	77	71	46	56	62	56	56	65	60	57	49	42	71	69	57	56	57	54	58	54	49	56	62	58	62.1	
	Minimum	30	29	33	39	40	42	37	38	44	32	30	26	42	35	35	40	35	22	25	40	48	36	23	25	30	41	35	42	26	36	37	34.6	
Wells	Maximum	50	55	56	70	72	72	66	72	68	45	54	58	60	52	58	58	51	42	50	68	68	46	48	52	56	54	46	50	56	60	52	57.0	
	Minimum	32	30	39	46	48	58	42	46	46	27	37	31	48	34	25	18	35	22	30	50	46	37	27	30	31	40	40	35	40	50	45	38.4	
Massachusetts																																		



Scale of Shading





## Daily Precipitation for October, 1916—Continued from page 77.

Stations.	Watersheds.	Day of month.																															Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Rhode Island.																																		
Block Island ***	Coast									.04					.35	.02		.22	T.		1.11	.32	.18								.24			2.48
Bristol	do									T.					*	.14		.04	.02		*	1.78	.14								.30			2.42
Greene	do									.03					.36			.08			*	1.81	.04								.29			2.61
Hope Valley	do														.10			.50			1.39	1.21	.10								.46			3.76
Kingston	do														.38			.13	.07		.93	1.25	.16								.30			3.22
Narrag'sett Pier***	do									.03	.01				.29	.27		.15	.17		.70	.67	.17								.32			2.78
Pawtucket	do									.01					*	.25		.01	T.	*	*	2.31									.15			2.73
Providence**	do									T.					.21	.01		.04	T.		1.48	.44	.01			T.	.20						2.39	
Wallum Lake.	do									.10					.36						1.13	.15											1.74	
Connecticut.																																		
Bridgeport	Coast									T.					.27	T.		.13			1.10		.06			T.							1.56	
Canton	Connecticut									.01											1.22	T.	.05			T.							1.28	
Colchester	Coast										T.				.40			.08			*	1.43	.10							.21			2.22	
Cream Hill	Housatonic.									.05					.15	.30					.35	.25								.02			1.24	
Danielson	Coast														.10				.15	*	*	1.15						.20			.05		1.65	
East Hartland															.12						1.26												1.38	
Falls Village	Housatonic.									.07					.27		.1		.05		.97		T.										0.96	
Hartford ***	Connecticut									T.					.13			T.	T.				.88	.01	.65				.01			T.	1.08	
Hawleyville	Housatonic.																																2.52	
Lake Konomocott.	Coast														.30		.05					1.82	.05						.30				2.05	
New Haven***	do									T.					.18		.10	T.			1.66	T.	.07					.04					2.98	
New London	do									T.					.07	.10	.08	.11	.12		.90	1.20	.19						.21				1.50	
N. Grosvenor Dale.	do										.05				.41						.76	.10						.18					1.37	
Norwalk	do														.20			.11			.98	.06											1.60	
Southington	do														T.	.15		T.			.60	.80	.05					T.					2.33	
Storrs	Coast														.60			.03			1.46	.04						.20					1.54	
Torrington	Housatonic.														.22						1.27	.05											2.88	
Voluntown	Coast														*	.30		.13		*	*	2.25							.20				2.88	
Waterbury	Housatonic.														.23			.05				.78	.04										1.10	

## Special River Rainfall Stations

<i>Maine.</i>																																	
Brownville	Saco										.10									.08													2.93
Mattawamkeag	Penobscot																			.25													3.06
West Enfield.	do														.10						.95												2.41
<i>New Hampshire.</i>																																	
Franklin Junction.	Merrimack																				.10												1.77
Lancaster	Connecticut																			.15													1.62
Manchester	Merrimack																			.03													1.32
Sewall's Falls **	do																			.01													1.48
West Stewartstown	Connecticut																			.23													1.99
<i>Vermont.</i>																																	
Bellow's Falls.	Connecticut																			.05													1.45
Wells River	do																			.36													2.48
White River Junction	do																			.02	.02												0.99
<i>Massachusetts.</i>																																	
Holyoke	Connecticut																				.06												1.13

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

T. Precipitation is less than 0.01 inch rain or melted snow.

†† Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.; Moss Brook, Wendell Depot, Mass.; Priest Brook, Winchendon, Mass.; Sewall's Falls, Concord, N. H.

## Comparative Data for New England for October.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.								
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888....	44.2	74	8	5.39	.....	14		0	8	8	.....	nw.	10.5	52	e.	1903....	50.1	79	10	3.63	4.83	10	T.	12	7	12	58	nw.	11.5	62	ne.
1889....	46.1	80	6	4.53	.....	12		0	8	9	14	ne.	11.0	72	ne.	1904....	46.4	81	11	2.25	2.40	8	T.	14	7	10	54	nw.	10.0	83	sw.
1890....	47.7	84	12	7.34	.....	16		0	6	10	15	nw.	10.4	72	ne.	1905....	49.3	85	10	1.68	1.90	5	0	18	7	6	69	w.	8.7	60	w.
1891....	48.1	91	10	3.82	.....	10		0	9	10	12	nw.	11.5	72	ne.	1906....	50.1	80	15	4.30	5.19	8	T.	11	8	12	48	ne.	9.7	60	ne.
1892....	44.6	84	20	1.50	.....	8		0	12	10	9	sw.	10.0	47	nw.	1907....	45.3	78	10	4.66	3.22	8	0	15	7	9	58	nw.	10.1	66	sw.
1893....	51.6	88	11	4.01	.....	7		0	12	11	7	nw.	9.9	63	se.	1908....	52.1	93	14	2.94	3.54	7	0	17	5	9	55	nw.	9.1	56	n.
1894....	52.2	80	23	4.96	3.70	13		0	10	8	13	sw.	12.0	84	e.	1909....	48.6	92	13	1.60	1.65	8	0	12	10	9	53	nw.	9.6	50	nw.
1895....	45.2	77	9	5.03	5.92	8	T.	12	11	8	55	nw.	12.0	61	e.	1910....	50.9	89	10	1.65	3.86	8	0	15	7	9	51	nw.	11.7	54	sw.
1896....	46.6	78	12	3.58	3.00	13		0	8	7	16	nw.	12.6	78	ne.	1911....	48.6	78	15	4.04	6.64	11	0	13	6	12	46	nw.	9.6	58	ne.
1897....	50.1	91	12	1.10	1.75	4		0	18	7	6	nw.	11.5	60	ne.	1912....	51.9	89	19	2.91	4.88	8	0	17	6	8	57	sw.	10.6	60	ne.
1898....	51.1	91	18	6.53	3.80	11		0	11	8	12	nw.	10.4	60	e.	1913....	54.3	87	20	6.69	3.61	13	0	7	6	18	29	n.	11.3	65	sw.
1899....	51.2	84	14	2.01	2.50	7		0	11	8	12	nw.	9.1	67	ne.	1914....	52.6	87	8	2.21	3.27	5	T.	14	8	9	54	sw.	9.3	53	n.
1900....	53.9	85	15	3.65	2.75	10		0	11	8	12	ne.	9.9	66	nw.	1915....	51.3	82	18	2.77	2.10	9	0	13	7	11	50	sw.	10.2	60	ne.
1901....	49.8	82	15	2.98	1.89	6		0	17	7	7	sw.	9.8	52	w.	1916....	50.5	87	17	1.94	2.22	7	0	17	7	7	64	sw.	11.1	66	w.
1902....	49.4	79	11	4.97	3.40	9	T.	12	9	10	53	sw.	10.3	72	sw.																



U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

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NEW ENGLAND SECTION

NOVEMBER, 1916

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BY  
JOHN W. SMITH  
METEOROLOGIST

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
DECEMBER 27, 1916



Departure of the Mean Temperature from the Normal, November, 1916.



Shaded portions show excess (+).  
Unshaded portions show deficiency (-).  
Lines show amount of excess or deficiency.



## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

VOL. XXVIII. BOSTON, MASS., NOVEMBER, 1916. No. 11.

## GENERAL SUMMARY.

The general conditions of the month were normal for the season. In the northern portion of the section the precipitation was above the normal and the temperature somewhat below; in the southern portion these conditions were reversed, the precipitation being below and the temperature slightly above the normal. The second decade, however, was unusually cold for the season, minima near or slightly below zero occurring on the 16th and 17th at scattered stations in the northern States. The only considerable snowfall was on 13th and 14th, when from 6 to 10 inches fell over the northern portion of the section, giving good sleighing until about the 23d, when it melted rapidly, with the ground generally bare at the end of the month. There was little frost in the ground at anytime, and some ploughing was done during the last week.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 14 stations reporting, was 30.10 inches, which was .05 inch above the normal for the month, and .12 inch above the mean for November, 1915. The highest monthly mean was 30.13 inches, at New Haven, Conn.; the lowest, 30.04 inches, at Eastport, Me. The highest recorded was 30.58 inches, at Portland, Me. on the 12th; the lowest, 29.01 inches, at Northfield, Vt. on the 24th. The monthly range for the section was 1.57 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 9 stations, was 36.7°, which was 2.9° below the mean for November, 1915. During the past 28 years the average November temperature has been lower in 5 years and higher in 21 years than that of the present month, and the same in 2 years. The highest average November temperature during this period was 42.0°, in 1896; the lowest, 32.5°, in 1904. The average temperature of the several States of the section was as follows: Maine, 32.5°; New Hampshire, 34.5°; Vermont, 33.0°; Massachusetts, 40.0°; Rhode Island, 40.9°; Connecticut, 40.2°. The average temperature for the section was 0.6° below the normal. The departures from the normal for the several States were as follows: Maine, -1.7°; New Hampshire, -1.0°; Vermont, -0.8°; Massachusetts, +0.1°; Rhode Island, -1.9°; Connecticut, +0.3°. The highest monthly mean was 45.0°, at Block Island, R. I. and New London, Conn.; the lowest, 28.0°, at Van Buren, Me. The highest recorded was 71°, at Cornish, Me. and Rutland, Vt. on the 9th; the lowest, -7°, at Farmington and Millinocket, Me. on the 17th. The greatest local monthly range was 75°, at Rutland, Vt.; the least, 35°, at Block Island, R. I. The greatest daily range was 50°, at Patten, Me. on the 18th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 14 stations reporting, was 74 per cent, which was 2 per cent below the normal for the month, and 4 per cent above the average for November, 1915. The highest monthly average was 82 per cent, at Concord, N. H. and Amherst, Mass.; the lowest, 69 per cent, at Portland, Me.

## PRECIPITATION.

The average for the section, as determined from the records of 10 stations, was 2.96 inches, which was 0.44 inch above the aver-

age for November, 1915. During the past 28 years the average November precipitation has been greater in 13 and less in 14 years than that of the present month, and the same in 1 year. The greatest November precipitation during this period was 6.38 inches, in 1897; the least, 1.17 inches, in 1908. The average for the several States was as follows: Maine, 3.52 inches; New Hampshire, 3.11; Vermont, 3.33; Massachusetts, 2.48; Rhode Island, 2.46; Connecticut, 2.74. The average for the section was 0.53 inch below the normal for the month. The departures from the normal for the several States were as follows: Maine, +0.27 inches; New Hampshire, +0.18; Vermont, +0.35; Massachusetts, -1.11; Rhode Island, -1.65; Connecticut, -0.53. The greatest monthly amount was 5.56 inches, at Somerset, Vt.; the least, 1.05 inches, at Provincetown, Mass. The greatest amount in 24 hours was 3.28 inches, at Winslow, Me. on the 30th. The average snowfall for the section was 5.1 inches, which was 3.8 inches greater than the average for November, 1915, and 0.4 inch above the normal for the month as determined from the records of the past 28 years. The greatest average snowfall in any November during the past 28 years was 17.5 inches in 1898; the least, trace, in 1890. The average fall in the several States in November, 1916, was as follows: Maine, 10.0 inches; New Hampshire, 5.4; Vermont, 9.5; Massachusetts, 1.6; Rhode Island, 0.5; Connecticut, 0.6. The average number of days with .01 inch or more of precipitation was 9, the same as for the month in 1915, and 1 less than the normal.

## WIND.

The prevailing direction of the wind was from the northwest, which is the normal direction for the month, as determined from the records of the past 29 years. The average monthly wind movement for the section, 14 stations reporting, was 8,323 miles. The greatest monthly wind movement was 14,497 miles, at Block Island, R. I.; the least, 3,631 miles, at Concord, N. H. The average hourly velocity was 11.5 miles, which was 0.7 mile below the average for November, 1915, and 0.1 mile below the normal for the month. The highest recorded velocity was 62 miles per hour from the south, at Blue Hill Observatory, Hyde Park, Mass. on the 23d. This is about the usual maximum velocity for the month.

## SUNSHINE AND CLOUDINESS

The average number of clear days for the section was 13; partly cloudy, 6; cloudy, 11. The normal for the month, as determined from the records of the past 28 years, is 10 clear, 8 partly cloudy, and 12 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 52, which was 5 per cent above the average for November, 1915, and 3 per cent above the normal for the month, as determined from the records of the past 23 years. The greatest percentage of possible sunshine in any November since the beginning of the automatic records in 1894, was 58, in 1903; the least, 32, in 1896. The greatest percentage of possible sunshine for at any station for November, 1916, was 63, at New Haven, Conn.; the least, 35, at Burlington and Northfield, Vt.

## DATES OF MISCELLANEOUS PHENOMENA.

*Thunderstorm.*—Williamstown, Mass., 3.

*Halos, Solar.*—Northfield, Vt., 9; Blue Hill, Mass., 23; New Haven, Conn., 22, 28.

*Auroras.*—Howe Brook, Me., 26; North Bridgton, Me., Durham, N. H., Block Island and Greene, R. I., 3; Woodstock, Vt., 7; Blue Hill, Mass., 1, 3; New Haven, Conn., 21.

*Halos, Lunar.*—Eastport, Me., 7; Enosburg Falls, Vt., 5; Northfield, Vt., 4; Woodstock, Vt., 5, 7; Blue Hill, Mass., 4; Boston, Mass., 4, 9; Hingham, Mass., 4; Leominster, Mass., 4; New Haven, Conn., 30.



## Climatological Data for November, 1916.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.					Precipitation, in inches.				No. of days.				Prevailing direction of wind.	Observer.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.			Partly Cloudy.	Cloudy.
Maine.																				
Bar Harbor	Hancock	20	30																William Miller.	
Cornish	York	778	61	36.1		71	9	4	15 <sup>a</sup>	41	3.73	-0.11	1.47	10.0	7	11	7	12	T. H. West.	
Eastport	Washington	53	44	34.2	-0.9	57	9	11	27	31	2.12	-1.96	0.90	10.7	8	7	10	13	U. S. Weather Bureau.	
Fairfield	Somerset	90	31																U. Paperboard Co., Inc.	
Farmington	Franklin	450	19	30.9	-2.2	66	9	7	17	40	4.18	+0.80	1.90	11.5	10	8	10	12	State Normal School.	
Gardiner	Kennebec	163	24	33.6	-3.1	57	10	1	22	43	3.44	-0.36	1.25	10.0	8	16	4	10	Samuel D. Soule.	
Greenville	Piscataquis	1,140	12	29.2		69	9	0	17	37	4.17	+1.14	1.86	9.7	13				U. S. Weather Bureau.	
Houlton	Aroostook	362	14	36.0		63	9	3	17	40	2.15	-0.03	0.63	9.0	5	8	13	9	Bangor & Aroostook RR.	
Langtown	Franklin	1,500		29.4		62	9	2	17	34	2.63	-1.03	1.03	15.0	9	8	7	15	Langtown Co.	
Lewiston	Androscoggin	185	33	33.2	-2.5	67	9	9	17	35	4.12	+0.22	1.87	11.4	11	14	8	8	Union Water Power Co.	
Madison	Somerset	257	13																William Jardine.	
Millinocket	Penobscot	386	13	30.2		62	9	7	17	34	5.33	+1.85	3.19	8.6	9	16	1	13	Great Northern Paper Co.	
North Bridgton	Cumberland	450	23	34.2	-2.8	66	9	7	15 <sup>a</sup>	36	4.25	+0.80	1.91	11.0	5	14	7	9	C. L. Chadbourne.	
Orono	Penobscot	129	47	34.2	0.0	64	9 <sup>a</sup>	2	17	34	1.60	-2.16	0.75	11.0	6	16	2	12	Maine State College.	
Patten	do	550	14	32.2		67	9	11	17	45	3.80	+0.85	2.00	8.0	4	6	12	18	Bangor & Aroostook RR.	
Portland	Cumberland	99	45	36.6	-1.0	61	9	16	17	29	2.83	-0.97	1.16	6.1	8	13	7	10	U. S. Weather Bureau.	
Presque Isle*	Aroostook	1,000	7	28.2		69	9	5	17	32	2.85	-1.00	1.00	11.5	7	11	5	14	E. M. Libby.	
Rumford	Oxford	505	23	32.2	-1.9	66	9	4	17	27	3.58	+0.32	1.84	6.6	11	17	3	10	Charles A. Mixer.	
Van Buren	Aroostook	510	12	28.0		65	9	4	17	33	3.36	-1.57	0.87	10.5	10	9	8	13	Rev. J. M. Thomas.	
Winslow	Kennebec	90	21	33.2	-1.2	67	9	4	17	37	5.11	+2.11	3.28	11.0	8	18	2	10	Hollingsworth & Whitney.	
New Hampshire.																				
Alstead Center	Cheshire	1,120	12	34.7	-0.3	60	9	12	15 <sup>a</sup>	31	3.07	-0.02	1.15	2.0	8	17	6	7	Frank Dewing.	
Bethlehem	Grafton	1,470	24	30.9	-1.7	66	9	2	26	38	3.71	+1.05	1.10	11.5	12	13	2	15	Benjamin Tucker.	
Concord	Merrimac	350	56	36.0	-0.8	69	9	12	22	38	2.63	-0.76	0.99	4.0	13	6	6	18	U. S. Weather Bureau.	
Durham	Stafford	88	21	36.4	-2.6	67	24	11	27	39	2.77	-0.25	0.88	3.0	8	7	13	10	N. H. Agr. College.	
Franklin	Merrimac	440	17	35.4	-0.4	69	9	9	17 <sup>a</sup>	37	3.56	+1.15	1.32	5.0	10	15	5	10	Dr. C. P. Webster.	
Glencoff	Grafton	1,650	3																State Sanatorium.	
Grafton	do	863	30																P. R. Kimball.	
Hanover	do	603	82	33.1	-0.5	63	9	1	22	37	2.44	-0.35	0.62	6.9	11	1	17	12	Dartmouth College.	
Keene	Cheshire	506	31	35.5	-1.2	65	9	6	22	39	3.71	+1.07	1.12	1.8	11	13	7	10	Samuel Wadsworth.	
Nashua	Hillsboro	125	31																C. B. Stevens.	
Newton	Rockingham	126	28	36.0	-1.8	66	9	8	27	42	2.55	-0.76	1.03	2.5	10	15	12	3	W. C. Gale.	
Plymouth	Grafton	500	28	32.6	-0.1	64	9	0	15	37	3.55	+0.45	0.91	11.5	9	18	0	12	Mrs. Hattie G. Trow.	
Vermont.																				
Bloomfield	Essex		9	29.8		63	9	-6	122	42	4.58	+2.72	1.43	13.5	13	8	7	15	Lyman Falls Power Co.	
Burlington	Chittenden	404	13	34.3	+0.6	63	9	6	26	27	2.08	-0.50	0.60	10.6	14	8	7	15	U. S. Weather Bureau.	
Cavendish	Windsor	910	13	32.4		68	10	2	15	37	3.62	+1.53	0.75	7.0	11	14	4	12	Colonial Power Co.	
Chelsea	Orange	840	21	31.1	-2.1	66	8	-6	17	39	2.69	-0.08	0.60	13.0	12	11	3	16	W. F. Dewey.	
Cornwall	Addison	517	23	35.8	-0.3	64	9	4	15	30	1.69	-0.71	0.74	10.0	9	9	8	13	C. H. Lane.	
Enosburg Falls	Franklin	601	25	33.5	-1.0	66	8	4	15 <sup>a</sup>	36	3.24	+0.02	1.08	7.0	13	13	4	13	J. W. Pomeroy.	
Hyde Park	Lamoille	576	4	31.8		67	9	0	22	41	3.38	-0.08	0.83	12.5	13	9	2	19	A. V. Wiswell.	
Northfield	Washington	876	30	31.8	-0.2	67	9	-2	17	36	3.13	+0.53	0.94	11.6	15	3	9	18	U. S. Weather Bureau.	
Rutland	Rutland	562		34.3		71	9	-4	15	35	3.20	-1.17	5.5	8	15	0	15	nw.	George H. Ross.	
Somerset	Windham	2,096	5	32.7		64	9	5	16	29	5.56	-1.96	14.0	18	12	7	11	nw.	Power Construction Co.	
St. Johnsbury	Caledonia	711	23	31.8	-1.5	65	9	-4	22	38	2.94	+0.30	1.07	12.7	14	13	8	9	n.	Fairbanks Museum.
Vernon	Windham	310	1	36.4	-0.7	64	9	10	22	33	3.45	-0.46	1.10	2.0	8	12	8	10	nw.	Conn. River Power Co.
Wells	Rutland	750	25	33.5	-1.4	58	9	6	19	26	3.84	+0.61	0.98	5.0	10	8	8	14	s.	E. R. Pomeroy.
Woodstock	Windsor	700	24	33.0	-0.8	66	9	0	15	36	3.21	+0.33	0.79	9.0	10	11	7	12	.....	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	27	38.0	-0.3	64	9	12	22	35	3.29	+0.08	1.34	1.5	10	11	7	12	nw.	Mass. Agr. College.
Blue Hill	Norfolk	640	32	40.2	+0.5	64	9	18	21	30	1.88	-2.05	0.82	1.1	10	14	6	10	sw.	Blue Hill Observatory.
Boston	Suffolk	124	46	42.6	+1.4	68	9	22	21	29	1.67	-2.43	0.94	0.7	8	11	8	11	w.	U. S. Weather Bureau.
Chestnut Hill*	do	124	36	41.7	+0.4	68	9	14	22	31	1.88	-2.13	0.71	1.0	9	22	0	8	.....	Met. Water Board.
Clinton	Worcester	370	20	39.6		65	9	17	21	33	2.86	-0.57	1.04	2.8	10				Do.	
Concord	Middlesex	139	26	37.5		67	9	10	22	35	2.07	-1.37	0.98	1.3	9	13	7	10	sw.	Fred A. Tower.
Fall River	Bristol	200	50	42.0	-0.9	60	9 <sup>a</sup>	21	21	24	3.14	-0.52	1.27	1.2	10	12	14	4	sw.	C. V. S. Remington.
Fitchburg	Worcester	550	33	38.2	-0.2	67	9	15	27	34	2.46	-0.81	0.76	3.0	10	17	4	9	nw.	Dr. A. P. Mason.
Framingham	Middlesex	160	36	39.8	-0.9	65	9	12	22	34	2.25	-1.41	0.97	1.5	7				Met. Water Board.	
Lawrence	Essex	51	32	38.5	-1.4	66	9	15	22	33	2.30	-1.35	1.04	2.0	11	14	8	8	w.	Essex Company.
Lowell	Middlesex	100	31	40.0	+0.5	66	10	13	22	31	2.53	-1.07	0.97		9				Props. Locks & Canals.	
Nantucket	Nantucket	47	30	44.5	-0.7	62	9	26	26	24	2.25	-1.03	1.37	T.	9	7	10	13	sw.	U. S. Weather Bureau.
New Bedford	Bristol	88	104																City Engineer.	
Plymouth	Plymouth	50	31	39.4		61	9 <sup>a</sup>	17	22	32	3.22	-0.84	1.65	0.5	8	16	2	12	w.	Miss L. B. Knapp.
Provincetown	Barnstable	40	29	42.5	-1.4	60	9	24	27	24	1.05	-2.32	0.52	T.	5	17	4	9	sw.	Gideon Bowley.
Rockport	Essex	25	14	42.2		64	9	18	26	32	1.47	-0.52	0.8	11	17	4	9	nw.	U. S. C. G. Station.	
Rutland	Worcester	1,160	14	35.0		62	9	16	22	30	2.67	-1.14	1.00	1.0	9	14	6	10	nw.	State Sanatorium.
Springfield	Hampden	199	6	41.6	+2.8	65	9	12	22	35	2.70	-1.14	1.00	1.0	9	14	6	10	nw.	U. S. Army.
Turners Falls	Franklin	200	30	37.2	0.0	63	9	12	22	31	2.91	-0.29	0.86		10	17	2	11	sw.	Turners Falls Co.
Westboro	Worcester	298	42	43.2	+3.4	65	9	13	22	30	2.04	-1.76	0.80	3.0	6				w.	Miss E. W. Newcomb.
Williamstown	Berkshire	711	35	36.8	-0.8	62	9 <sup>a</sup>	13	22	33	4.24	+1.35	0.98	6.3	15	8	11	11	w.	Williams College.
Worcester*	Worcester	518	24	40.2	-0.4	60	9 <sup>a</sup>	19	21	30	2.20	-1.55	1.13	1.5	8	16	4	10	sw.	G. W. Swan.
Rhode Island.																				
Block Island	Newport	26	36	45.0	-0.3	60	9	25	21	25	2.39	-1.49	1.02	T.	8	14	6			



## Daily Precipitation for November, 1916

Stations.	Watersheds.	Day of month.																																Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Maine.																																		
Ashland	St. John	.13	.06								.11			.12				.03		T.				.58				T.		1.02		2.09		
Bar Harbor	Coast																																	
Cambridge	Kennebec	.08	.20										.12	.10				T.	.25						.80					.08	1.60	3.36		
Cornish	Saco	.09							T.					.65										1.17						.10	1.37	3.73		
Danforth	Penobscot	.12												.80											.40						.20	1.52		
Eastport***	Coast	.00																							.33	.57				.07	.01	2.12		
Eastis	Kennebec	.18	.15	.01	.02					.05	T.	.02	.11	.82	T.	.08	T.	.02	T.	.01	T.				.85	.65				.01	1.04	3.42		
Fairfield	do																																	
Farmington	do	.27	.06										T.	.20	.73		.05		.07						.10	.70				.10	.90	4.18		
Gardiner	do	.09	T.										.26	.54				.21							.20	.84				.05	1.25	3.44		
Greenville***	do	.28	.01	T.						.06	T.	.10	.33	.40		.05	.04	.04							.60	.22				.18	1.86	4.17		
Houlton	St. John	.13												.63																		.45	2.15	
Howe Brook	Penobscot	.20												.40				.05														.10	2.81	
Langtown**	Kennebec	.13	.04										T.	.14	.57	.05		T.	.05						T.	.62				.02	1.05	2.63		
Lewiston	Androscooggin	.25								.02		.02	.29	.62			T.	.09	.08						.63	.23				.02	1.87	4.12		
Madison	Kennebec																																	
Millinocket	Penobscot	.11		.01									.01	.15	.08																	.13	3.19	
North Bridgton	Saco	.19	.05								T.	.05	.15	.75					.14						1.94	T.					.13	5.33		
Orono	Penobscot		.10	.02									.10	.75					.25						.34	.71					.13	4.25		
Patten	do												.10	.75					.25													.38	1.40	
Portland***	Coast	.05		T.						.01				.60					.20						1.00					T.		2.00	3.80	
Presque Isle	St. John												.27	.48			T.	.14							.70	.02			T.		1.16	2.83		
Ramford	Androscooggin	.25		T.							T.	T.	.07	.39	.27		.08	.04	.02						.49	.05					.08	1.84	3.58	
Van Buren	St. John	.02	.33									.42		.20					.09							.87				.07	.14	.85	3.36	
Winslow	Kennebec	.18	.04											.58				.01							.97					.05	3.28	5.11		
New Hampshire.																																		
Aldstead Center	Connecticut	.29			.10	T.	.20				T.		T.	T.	.43		T.	T.	.03						.33	.54					T.	1.15	3.07	
Bethlehem	do	.38	.13	.19							.04		.05	.20	.99				.05						.78	.50				.07	.94	3.71		
Brookline	Merrimack	.18			.29								.53	.20	.03			.18		.05												.92	3.11	
Concord***	do	.12		T.					.01				.16	.21			.03	.09	.05						.80	.05	.05			.07	.92	2.63		
Durham	do	.14		.02	.05									.88			.01			.12						.67						.88	2.77	
Franklin	do	.21				.05					.04		T.	.12	.72				.08	.07					.45	.87	T.				T.	.95	3.56	
Glencliff	do																																	
Grafton	do																																	
Hanover	Connecticut	.26		.03	T.	.03				.04		T.		.44			T.	.13	.01						.43	.41				.04	.62	2.44		
Keene	do	.38		.07						.15			T.	.66				.03	.10						.44	.62				.01	1.12	3.71		
Nashua	Merrimack																																	
Newton	do	.03		.05	.05								T.	.57	.11		.02	.10							.48						.11	1.03	2.65	
Plymouth	do	.22		T.						.03			.13	.74				.14	.13						.34	.96				T.	.91	3.55		
Vermont.																																		
Bloomfield	Connecticut	.54	.15	.04	.02						.13			.20	.70		.02	.02							.11	1.15	.05				1.43	4.58		
Burlington***	Champlain	.19	.02	.05					.01		.01		.03	.30	.28		.01	.02							.31	.29				T.	.12	.44	2.08	
Cavendish	Connecticut	.37		.05	.42						.08		T.	.07	.75			.06							.33	.73	.09			T.	.67	3.62		
Chelsea	do	.10	.05	.04							.08		.04	.60	.30			.06							.25	.55				T.	.12	.50	2.69	
Cornwall	Champlain	.10		.08	T.								.05	.48					.06						.02	.20				T.	*	.74	1.69	
Enosburg Falls	do	.32	.03	.12					.03		.20		.05	.12	.34	.02	.01		.02						.02	.60	T.			T.	.12	1.08	3.24	
Hyde Park	do	.30	.05	.11							.83	.09	T.	.18	.61		.04	.01		.04					.02	.71	.01			T.	.06	.83	3.38	
Northfield***	Champlain	.13	.30	.02	T.	T.			.03	T.	.05	.40	.40	*	.50	*	.01	.01	.03						.74	.21				T.	.12	.62	3.13	
Rutland	do	.20		.05	.05					.25			*	.50	*				.01							.17					T.	.95	3.20	
Somerset	Connecticut	.33	.04	.16	.47	.15				.35			.05	.62	.04	.05	.02	.15							*	2.13	.13	.07			.02	.78	5.56	
St. Johnsbury	do	.22	.02	.11						.11	.03	.01	.20	1.07			T.	.05	.04						.07	.23					T.	.10	.68	2.94
Vernon	do		.10		.25					.17			.33				.10								1.10					T.	1.10	.30	3.45	
Wells	Champlain	.22		.07	.33					.11			.15	.95			T.	.08								.25	.70				T.	.98	3.84	
Woodstock	Connecticut	.12		.13	.20						.12			.21	.79			.11							.25	.70				T.	.58	3.21		
Massachusetts.																																		
Amherst	Connecticut				.13	.37				.07			.13	.20	T.	.02	.05								1.34					.09	.89	3.29		
Ashland	Merrimack	.02			.19								.24	.02			.09								.62							.91	2.09	
Bakers Bridge	do	.07			.32								.22	.39	T.	.20	T.									.48						.91	2.20	
Bedford	do	.06		T.	.17								T.	.37			.03	.07							.34	.18	T.					1.03	2.25	
Blue Hill	Coast	.04		T.	.08								T.	.01	.18	T.	.05	.06	.04							.30	.30				T.	.82	1.88	
Boston***	do	T.		T.	.05								T.	.03	.17	T.	.03	.07							.39	.01					T.	.92	1.67	
Brookton	Coast	.02			.09								.03	.19			T.	T.	.14						.14	.57						.58	1.76	
Chestnut Hill	do	.04			.15								.18	.05	.04		.07								.50						.14	.71	1.88	
Clinton	Merrimack	.06			.35		.02						.33			.05	.18								*	.81						1.04	2.86	
Concord	do	.04		T.	.11								T.	.34		.03	.01	.04																

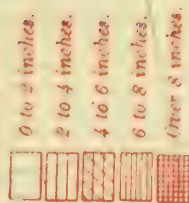


## Daily Temperatures for November, 1916.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean		
Maine.																																		
Cornish.....	Maximum	52	66	55	60	44	57	55	65	71	61	57	44	36	35	37	42	30	45	52	50	38	47	47	58	41	34	47	57	45	53	49.4		
Cornish.....	Minimum	42	33	28	29	25	19	21	29	35	35	30	21	29	13	04	15	4	15	25	25	14	07	19	33	19	12	11	24	33	36	22.8		
Eastport.....	Maximum	47	40	45	43	44	34	40	49	57	54	50	34	30	25	25	22	32	37	39	38	29	38	49	53	38	18	42	51	44	52	40.5		
Eastport.....	Minimum	45	38	37	34	32	31	29	35	40	38	29	25	23	17	16	15	13	31	33	20	18	18	30	38	16	11	11	39	35	43	28.0		
Farmington.....	Maximum	50	50	50	47	48	49	49	55	66	56	49	40	32	30	27	27	30	37	42	41	29	45	34	48	41	20	35	40	45	42	30.7		
Farmington.....	Minimum	43	34	27	29	18	17	18	27	26	35	25	23	23	17	0	1	7	13	28	20	13	12	17	31	15	8	7	20	28	32	20.7		
Greenville.....	Maximum	44	41	40	40	40	38	40	58	69	54	41	29	28	20	22	20	26	34	36	34	23	36	38	47	33	11	30	45	38	46	36.7		
Greenville.....	Minimum	41	34	30	31	19	19	19	24	26	32	37	29	20	19	15	9	5	0	16	29	17	15	14	27	32	10	4	2	29	32	32	21.6	
Millinocket.....	Maximum	46	48	48	44	43	41	38	45	62	51	45	35	30	22	22	16	4	1	7	18	30	22	17	19	28	32	15	8	5	23	31	31	22.0
Millinocket.....	Minimum	42	38	30	32	22	18	18	25	27	40	31	22	22	16	4	1	7	18	30	22	17	19	28	32	15	8	5	23	31	31	22.0		
Orono.....	Maximum	55	51	50	47	48	46	46	54	64	64	55	46	35	27	29	30	27	35	39	39	33	39	46	55	53	40	37	50	50	55	44.8		
Orono.....	Minimum	44	38	30	29	22	19	19	26	30	42	27	23	25	18	6	5	2	20	30	30	17	12	12	37	25	9	8	32	32	36	23.5		
Portland.....	Maximum	50	56	50	43	44	47	44	58	61	59	49	38	33	27	25	32	32	40	47	43	41	45	50	56	35	26	48	48	45	49	44.0		
Portland.....	Minimum	45	40	31	33	31	31	31	33	46	42	32	29	26	20	19	20	16	25	27	21	20	20	29	35	21	17	19	34	38	38	29.1		
Presque Isle.....	Maximum	49	49	44	42	40	48	46	58	66	59	46	38	32	32	28	26	24	38	42	38	27	40	40	50	30	18	32	39	38	44	40.1		
Presque Isle.....	Minimum	43	32	34	28	22	22	25	38	34	32	31	26	25	21	6	8	4	20	36	21	15	25	26	18	10	16	22	33	36	24.3			
Rumford.....	Maximum	48	46	44	38	35	37	39	39	39	39	36	27	18	22	22	22	28	35	32	27	30	46	47	42	22	25	35	29	47	36.2			
Rumford.....	Minimum	40	40	33	27	28	22	27	39	33	32	34	28	18	12	9	9	4	8	25	18	9	0	20	33	16	9	5	8	22	27	19.8		
Van Buren.....	Maximum	40	40	33	27	28	22	27	39	33	32	34	28	18	12	9	9	4	8	25	18	9	0	20	33	16	9	5	8	22	27	19.8		
Van Buren.....	Minimum	40	40	33	27	28	22	27	39	33	32	34	28	18	12	9	9	4	8	25	18	9	0	20	33	16	9	5	8	22	27	19.8		
New Hampshire.																																		
Alstead Center.....	Maximum	55	52	45	45	37	48	49	53	60	57	46	37	38	35	26	28	28	34	41	39	30	38	45	52	42	22	45	42	51	50	41.7		
Alstead Center.....	Minimum	45	36	37	36	32	30	27	35	38	38	37	25	28	23	12	18	13	23	30	30	15	12	27	32	20	14	14	31	38	39	27.7		
Bethlehem.....	Maximum	48	47	41	38	43	45	49	54	66	61	45	30	27	27	26	23	35	39	35	23	32	45	52	32	14	45	47	48	50	39.8			
Bethlehem.....	Minimum	39	45	29	25	22	25	24	28	40	31	25	17	24	16	5	12	3	19	29	19	9	5	19	32	11	2	7	34	36	37	22.0		
Concord.....	Maximum	55	58	48	47	41	51	52	62	69	58	48	37	36	32	28	31	27	40	47	41	29	44	57	56	34	25	50	52	55	54	45.5		
Concord.....	Minimum	46	37	32	30	30	27	24	29	31	35	32	29	31	20	17	19	13	22	26	23	19	12	20	34	20	15	15	30	36	42	26.5		
Franklin.....	Maximum	54	59	51	50	41	57	56	64	69	62	51	37	35	33	34	34	27	41	48	40	30	44	37	53	36	25	49	49	48	51	45.5		
Franklin.....	Minimum	46	33	29	30	28	24	23	30	32	40	29	26	32	22	12	19	9	18	24	18	9	18	33	21	13	21	23	33	39	25.6			
Hanover.....	Maximum	57	54	45	48	38	51	51	56	63	60	50	32	33	33	26	29	25	39	45	38	27	38	53	34	23	50	44	46	53	42.2			
Hanover.....	Minimum	47	35	29	29	27	27	22	29	31	37	30	21	29	16	2	12	4	22	30	24	15	1	12	34	21	9	13	27	35	38	23.6		
Nashua.....	Maximum	58	58	50	44	42	50	52	62	64	61	48	38	34	31	27	29	24	37	42	39	28	38	35	50	39	21	35	40	43	49	42.1		
Nashua.....	Minimum	52	32	28	33	26	22	20	25	31	39	28	25	30	24	0	12	3	20	26	29	18	3	11	32	19	11	9	15	31	37	23.0		
Plymouth.....	Maximum	58	58	50	44	42	50	52	62	64	61	48	38	34	31	27	29	24	37	42	39	28	38	35	50	39	21	35	40	43	49	42.1		
Plymouth.....	Minimum	52	32	28	33	26	22	20	25	31	39	28	25	30	24	0	12	3	20	26	29	18	3	11	32	19	11	9	15	31	37	23.0		
Vermont.																																		
Burlington.....	Maximum	55	50	45	42	42	46	51	57	63	49	51	29	28	24	25	26	30	38	40	41	26	33	47	52	25	23	45	44	51	53	41.1		
Burlington.....	Minimum	44	40	36	30	30	30	29	26	34	42	38	25	23	22	19	14	13	10	28	34	21	16	15	33	25	13	6	23	40	40	39	27.5	
Enosburg Falls.....	Maximum	55	45	42	43	50	49	56	66	64	57	48	31	28	25	28	25	30	37	39	38	27	38	46	48	34	15	46	48	51	54	42.1		
Enosburg Falls.....	Minimum	37	39	37	26	21	22	28	32	46	36	29	22	24	17	4	15	5	25	36	22	16	8	24	34	13	4	10	40	39	35	24.9		
Northfield.....	Maximum	55	50	44	42	39	47	51	64	67	49	50	31	29	26	24	25	24	37	43	39	24	35	46	52	27	19	48	52	51	52	41.4		
Northfield.....	Minimum	43	35	30	24	24	24	21	29	39	32	25	20	25	10	2	0	2	19	34	19	5	1	11	27	18	6	19	39	36	35	21.6		
St. Johnsbury.....	Maximum	53	51	48	46	42	54	53	65	65	53	49	34	30	28	29	21	40	45	39	29	32	29	48	40	20	43	44	42	49	41.5			
St. Johnsbury.....	Minimum	46	39	35	28	21	26	22	27	33	29	19	27	22	4	12	0	16	31	25	16	4	4	28	17	7	8	27	34	37	22.1			
Wells.....	Maximum	54	45	42	42	40	42	46	55	58	48	44	36	32	30	26	26	28	33	35	34	25	34	46	55	34	24	22	45	51	52	40.1		
Wells.....	Minimum	44	38	34	29	33	28	26	36	45	36	34	26	28	20	6	15	9	26	29	25	14	10	26	84	20	9	16	30	40	40	26.9		
Massachusetts.																																		
Amherst.....	Maximum	60	60	51	55	49	53	56	61	64	56	50	35	42	40	38	36	28	41	50	46	38	47	58	58	33	29	51	48	46	56	47.8		
Amherst.....	Minimum	43	37	32	31	36	30	24	34	42	36	20	28	34																				



Scale of Shades.





## Daily Precipitation for November, 1916—Continued from page 85.

Stations.	Watersheds.	Day of month.																															Total.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
<i>Rhode Island.</i>																																			
Block Island ***	Coast	T.			.09	.10							.33	.01	.02	T.	T.	.13						1.02						T.	.69		2.30		
Bristol	do	.01				.25								.14	.05	T.	T.	*	.22					.90							.88		2.50		
Greene	do				.34									.10									1.09									.84		2.20	
Hope Valley	do					.32								.15	.05						.32		1.09									.72		2.60	
Kingston	do	.04				.20							.27		.10	T.	T.	.55						.52	.51							.72		2.90	
Narragansett Pier**	do	.07				.18							T.	.39	.06	.02	T.		.10	.09			.44	.47								.70		2.50	
Pawtucket	do	.03				.35							.05		.15	T.	*	.14					.64									.78		2.10	
Providence***	do	.03				.05	.17						.07	.02	.09	T.	.01	.17	T.				.67									.64		1.90	
Wallum Lake	do					.88								.20		.05	.10						1.10									1.30		3.60	
<i>Connecticut.</i>																																			
Bridgeport	Coast	.10			.06	.17							.04	.12	.02		.01		T.				.89	.01							.03	.75		2.20	
Canton	Connecticut	.12				.81							T.	.10			.02	.03					1.55	T.								.68		3.30	
Colchester	Coast	.08				.29							.07			T.	T.	T.	T.				1.48									1.75		3.60	
Cream Hill	Housatonic.	.12				.45					.06			.10			.02		.03				.70	.80	.02					.05	1.00		3.30		
Danielson	Coast					T.										T.		.10					.85									1.23		2.10	
East Hartland		.18				.98										T.		.08					1.45									.99		3.60	
Falls Village	Housatonic.				.30	.31				.08				.14		.02		.02					1.43								.01	.20	1.07		3.50
Hartford **	Connecticut	.08				.15	.48			T.			.01	.02	.04	T.	.02	.03					1.09	T.	T.					T.	.02	.89		2.80	
Hawleyville	Housatonic.														.07									.62								.94		2.30	
Lake Konomocott	Coast	.04				.20	.40						.12	.01	.01	T.	T.	.01					.90							.05	.95		2.50		
New Haven***	do	.11			.18	.20				T.		.12	.01	.01	T.	T.	.01					1.12								T.	1.10		3.10		
New London	do	.10				.35							.17	.30					T.	.03												1.29		3.10	
N. Grosvenor Dale	do			.05		.55							*	.20		T.	T.	T.					.88							*	.68		2.70		
Norwalk	do	.08				.50										T.	T.	T.		T.			.40	1.00							.90		2.70		
Southington	do	.10				.35	T.																1.40								1.30		3.10		
Storrs	Coast	.06				.48										.05	T.		.01													.34		1.10	
Torrington	Housatonic	.12				.69	.06			.04									*	.15				*	.78									1.10	
Voluntown	Coast				.23									.20	.08			T.	.02				1.52											2.10	
Waterbury	Housatonic	.10				.46										.04																			
																						</													

## Special River Rainfall Stations

Maine.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight. \* Precipitation indicated in that of following day.

T. Precipitation is less than 0.01 inch rain or melted snow. † Post-office addresses of these stations are as follows: Langdon, Rindge, N. H.; Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.; Moss Brook, Wendell Depot, Mass.; Priest Brook, Winchendon, Mass.; Sewall's Falls, Concord, N. H.

## Comparative Data for New England for November.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.								
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of
1888....	39.5	80	- 9	6.32	.....	14	5.0	9	7	14	.....	sw.	12.4	81	n w.	1913....	35.2	78	- 9	2.01	2.00	7	3.9	15	6	9	53	nw.	9.1	52	n w.
1889....	41.1	68	- 3	6.12	.....	14	3.1	8	15	.....	w.	10.3	63	22	n w.	1914....	32.5	67	- 10	1.63	2.10	5	5.9	13	7	10	52	nw.	9.6	74	n w.
1890....	37.4	71	2	1.40	.....	10	11	9	.....	nw.	15.0	54	25	.....	n w.	1915....	33.2	69	- 6	2.60	2.15	8	2.9	13	7	10	54	w.	10.5	63	n w.
1891....	37.7	68	- 14	2.69	.....	10	1.8	11	8	11	.....	nw.	11.6	63	10	1916....	37.3	70	0	2.58	2.20	9	8.4	10	7	13	41	nw.	10.9	61	n w.
1892....	37.7	76	6	5.10	.....	14	6.8	8	6	17	.....	nw.	11.6	70	10	1917....	33.0	69	0	5.06	3.00	10	2.4	10	7	13	37	nw.	10.6	70	n w.
1893....	37.8	72	- 1	2.17	.....	7	2.6	10	15	10	.....	sw.	11.4	72	8	1918....	38.1	69	- 4	1.17	1.29	8	3.2	12	7	11	49	nw.	11.2	60	n w.
1894....	34.2	69	- 8	3.36	.....	15	8.7	11	.....	13	48	nw.	13.1	73	2	1919....	31.7	67	- 7	2.35	4.36	9	3.1	11	8	11	39	sw.	12.7	72	n w.
1895....	40.8	78	- 3	5.98	.....	15	3.0	4	.....	16	41	sw.	11.3	77	2	1920....	31.4	67	- 4	3.49	5.04	9	6.6	7	9	13	46	nw.	12.1	58	n w.
1896....	42.0	74	- 11	3.19	3.03	12	3.8	7	.....	15	32	sw.	12.9	52	3	1911....	37.0	71	0	4.21	2.70	11	3.0	10	9	11	46	w.	13.3	62	n w.
1897....	36.9	68	- 3	6.38	5.80	11	7.5	7	.....	15	36	nw.	13.1	61	3	1912....	36.6	76	5	3.59	2.97	8	3.0	13	6	11	46	nw.	12.2	62	n w.
1898....	37.7	67	- 3	5.68	3.69	11	17.5	10	.....	16	14	sw.	12.2	97	11	1913....	31.4	75	- 6	2.37	3.64	7	2.6	12	7	12	49	nw.	11.6	58	n w.
1899....	37.1	71	- 5	2.16	2.21	6	3.0	10	.....	13	45	nw.	13.0	53	11	1914....	35.7	76	- 10	2.62	3.00	9	6.5	11	9	10	49	nw.	12.3	58	n w.
1900....	40.0	74	- 1	5.49	3.88	12	6.9	8	.....	15	38	nw.	11.7	71	11	1915....	39.6	73	- 1	2.52	2.40	9	1.3	13	7	10	47	nw.	12.2	70	n w.
1901....	32.7	72	- 9	2.20	2.29	7	7	9	.....	13	41	nw.	11.3	81	n w.	.....	36.7	71	- 7	2.96	3.28	9	5.1	13	6	11	52	nw.	11.5	62	n w.
1902....	41.9	71	- 1	1.27	1.25	7	6.0	10	8	12	39	nw.	9.5	60	e.																



JAN 28 1917

U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

NEW ENGLAND SECTION

DECEMBER, 1916

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BY  
JOHN W. SMITH  
METEOROLOGIST

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
JANUARY 19, 1917



Departure of the Mean Temperature from the Normal, December, 1916.



Shaded portions show excess (+).  
Unshaded portions show deficiency (-).  
Lines show amount of excess or deficiency.



## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

VOL. XXVIII. BOSTON, MASS., DECEMBER, 1916. No. 12.

## GENERAL SUMMARY.

The average temperature and precipitation of the section were normal for the month. The snowfall, and also the amount of sunshine received, were greater than usual. The temperature, during the first 12 days of the month, was generally above the normal; during the remainder of the month it averaged below the normal, with minima of zero or below in the northern States on several dates. The precipitation was considerably smaller in Vermont and the interior of New Hampshire than in Maine and the southern portion of the section. It was generally well distributed through the month. The heaviest snowfall was on the 16th, when from 6 to 12 inches fell in the southern portion of the section and from 12 to 20 inches in Maine; in northern New Hampshire and Vermont the heaviest fall was from 4 to 6 inches on the 12th and again on the 22d. There was little snow on the ground in the southern portion of the section, except for about a week following the 15th; in the interior of Maine the ground was well covered through the month.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 14 stations reporting, was 29.90 inches, which was .14 inch below the normal for the month, and .03 inch above the mean for December, 1915. The highest monthly mean was 29.96 inches, at New Haven, Conn.; the lowest, 29.74 inches, at Eastport, Me. The highest recorded was 30.62 inches, at Burlington, Vt. on the 26th; the lowest, 28.24 inches, at Eastport, Me. on the 16th. The monthly range for the section was 2.38 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 4 stations, was 25.9°, which was 1.5° below the mean for December, 1915. During the past 28 years the average December temperature has been lower in 11 years and higher in 17 years than that of the present month. The highest average December temperature during this period was 35.9°, in 1891; the lowest, 18.3°, in 1904. The average temperature of the several States of the section was as follows: Maine, 22.5°; New Hampshire, 22.8°; Vermont, 22.6°; Massachusetts, 29.7°; Rhode Island, 30.9°; Connecticut, 29.9°. The average temperature for the section was 0.3° below the normal. The departures from the normal for the several States were as follows: Maine, +1.7°; New Hampshire, -0.6°; Vermont, -1.3°; Massachusetts, -0.2°; Rhode Island, -2.5°; Connecticut, -0.4°. The highest monthly mean was 34.8°, at Block Island, R. I.; the lowest, 5.4°, at Patten, Me. and Glencliff, N. H. The highest recorded was 66°, at Torrington, Conn. on the 5th; the lowest, -27°, at Bloomfield, Vt. on the 30th and 31st. The greatest local monthly range was 79°, at Enosburg Falls, Vt.; the least, 40°, at Block Island, R. I. The greatest daily range was 40°, at Vernon, Vt. on the 18th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 13 stations reporting, was 74 per cent, which was 1 per cent below the mean for December, 1915, and 2 per cent below the normal for the month. The highest monthly average was 86 per cent, at Northfield, Vt.; the lowest, 67 per cent, at Portland, Me.

## PRECIPITATION.

The average for the section, as determined from the records of 4 stations, was 3.37 inches, which was 0.97 inch below the aver-

age for December, 1915. During the past 28 years the average December precipitation has been greater in 12 and less in 16 years than that of the present month. The greatest December precipitation during this period was 7.59 inches, in 1901; the least, 1.32 inches, in 1892. The average for the several States was as follows: Maine, 4.70 inches; New Hampshire, 2.88; Vermont, 2.27; Massachusetts, 3.29; Rhode Island, 3.36; Connecticut, 3.26. The average for the section was 0.04 inch above the normal for the month. The departures from the normal for the several States were as follows: Maine, +1.66 inches; New Hampshire, -0.32; Vermont, -0.30; Massachusetts, -0.32; Rhode Island, -0.51; Connecticut, -0.70. The greatest monthly amount was 6.09 inches, at Portland, Me.; the least, 1.31 inches, at Rutland, Vt. The greatest amount in 24 hours was 3.00 inches, at Patten, Me. on the 15th and 16th. The average snowfall for the section was 15.3 inches, which was 0.5 inch below the average for December, 1915, and 4.4 inches above the normal for the month as determined from the records of the past 28 years. The greatest average snowfall in any December during the past 28 years was 24.2 inches, in 1902; the least, 2.3 inches, in 1891. The average fall in the several States was as follows: Maine, 27.9 inches; New Hampshire, 15.8; Vermont, 14.7; Massachusetts, 10.7; Rhode Island, 7.4; Connecticut, 7.9. The average number of days with .01 inch or more of precipitation was 11, which was the same as for the month in 1915, and 1 more than the normal for December.

## WIND.

The prevailing direction of the wind was from the northwest, which is the normal direction for the month, as determined from the records of the past 29 years. The average monthly wind movement for the section, 14 stations reporting, was 9,551 miles. The greatest monthly wind movement was 18,903 miles, at Block Island, R. I.; the least, 4,026 miles, at Amherst, Mass. The average hourly velocity was 12.8 miles, which was 0.5 mile greater than the average for December, 1915, and 1.4 miles above the normal for the month. The highest recorded velocity was 82 miles per hour from the northwest, at Providence, R. I. on the 23d. This is somewhat greater than the usual maximum velocity for December.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 13; partly cloudy, 6; cloudy, 12. The normal for the month, as determined from the records of the past 29 years, is 11 clear, 8 partly cloudy, and 12 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 49, which was 8 per cent above the average for December, 1915, and 8 per cent above the normal for the month, as determined from the records of the past 23 years. The greatest percentage of possible sunshine in any December since the beginning of the automatic records in 1894, was 55, in 1894 and 1896; the least, 31, in 1906. The greatest percentage of possible sunshine for at any station for December, 1916, was 63, at New Haven, Conn.; the least, 32, at Northfield, Vt.

## DATES OF MISCELLANEOUS PHENOMENA.

*Thunderstorms.*—Nantucket, Mass., 6, 22; Block Island, R. I., 22.

*Auroras.*—North Bridgton, Me., 22, 27; Blue Hill, Mass., 28, 29.

*Halos, Lunar.*—Bethlehem, N. H., 31; Blue Hill, Mass., 3, 4, 15, 31; Boston, Mass., 3, 4, 5, 13, 31; Nantucket and Hartford, Conn., 3; New Haven, Conn., 3, 4.

*Halos, Solar.*—Concord, N. H., Boston and Nantucket, Mass., 24; Northfield, Vt., 23, 24; Woodstock, Vt., 19, 20; Blue Hill, Mass., 20, 24; Hingham, Mass., 24, 31; New Haven, Conn., 4, 19, 20, 24.



## Climatological Data for December, 1916.

		Temperature, in degrees Fahr.										Precipitation, in inches.				No. of days.			Observer.	
Stations.	Counties.	Elevation, feet.	Length of record, years.	Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.	Cloudy.		Prevailing direction of wind.
Maine.																				
Bar Harbor	Hancock	20	30																	William Miller.
Cornish	York	778	61	25.6	+0.4	57	7	-11	31	42	4.76	+1.64	1.60	28.5	11	12	8	11	w.	T. H. West.
Eastport	Washington	53	44	26.6	+1.3	52	1	-1	30	27	3.98	+0.01	1.63	18.9	16	7	6	18	w.	U. S. Weather Bureau.
Fairfield	Somerset	90	31																	U. Paperboard Co., Inc.
Farmington	Franklin	450	19	21.6	+4.1	45	6	-8	15	26	4.62	+1.30	1.00	25.0	14	13	10	8	nw.	State Normal School.
Gardiner	Kennebec	163	24	24.8	+1.1	48	5	-2	14	27	5.71	+2.04	1.40	25.5	13	13	5	13	nw.	Samuel D. Soule.
Greenville	Piscataquis	1,140	12	17.8		40	6	-8	30	27	4.87	+2.08	1.75	36.1	12					U. S. Weather Bureau.
Houlton	Aroostook	362	14	26.6		48	1	-12	29	33	4.13	+1.76	1.90	32.0	9	9	9	13	n.	Bangor & Aroostook RR.
Langtown	Franklin	1,500		17.1		42	6	-12	27	31	3.12		0.80	30.2	14	13	5	13		Langtown Co.
Lewiston	Androscoggin	185	33	24.0	+0.6	46	6	-3	30	22	4.46	+0.52	1.36	26.6	14	13	13	5	nw.	Union Water Power Co.
Madison	Somerset	257	13	22.2		50	1	-6	31	32	3.63	+0.44	1.20	21.2	11	19	2	10	nw.	William Jardine.
Millinocket	Penobscot	386	13	20.1		43	1	-6	30	28	5.23	+2.10	1.44	24.5	11	16	2	13	w.	Great Northern Paper Co.
North Bridgton	Cumberland	450	23	24.6	+0.9	49	8	-1	30	23	4.50	+1.15	1.32	26.0	11	12	8	11	n.	C. L. Chadbourne.
Orono	Penobscot	129	47	25.5	+4.2	53	1	-3	15	31	5.50	+1.98	1.80	35.0	9	16	5	10	nw.	Maine State College.
Patten	do	550	14	15.4		50	1	-20	26	34	4.90	+2.62	3.00	37.0	7	10	6	16	ne.	Bangor & Aroostook RR.
Portland	Cumberland	99	45	27.3	+0.2	44	5	-6	31	19	6.09	+2.41	2.48	24.5	14	16	3	12	nw.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	7	19.0		41	6	-13	27	30	5.90	+3.55	1.80	38.0	13	7	11	13	nw.	E. M. Libby.
Rumford	Oxford	505	23	22.8	+1.3	42	1	-1	30	25	3.30	+0.46	1.35	27.0	12	17	3	11	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	12	19.8		42	1	-11	29	44	5.61	+2.93	1.25	25.1	13	12	4	15	nw.	Rev. J. M. Thomas.
Winslow	Kennebec	90	21	23.5	+2.5	50	1	-6	24	31	4.12	+1.27	1.75	21.5	11	12	6	13	w.	Hollingsworth & Whitney.
New Hampshire.																				
Alstead Center	Cheshire	1,120	12	23.0	-0.3	48	5	-4	31	20	2.27	-0.80	0.84	20.0	12	17	6	8	nw.	Frank Dewing.
Bethlehem	Grafton	1,470	24	18.4	-2.2	49	5	-15	30	28	2.84	+0.51	0.87	20.5	12	11	3	17	nw.	Benjamin Tucker.
Concord	Merrimac	350	56	25.4	-1.0	48	5	-2	30	20	2.21	-1.14	0.86	12.5	11	14	6	11	nw.	U. S. Weather Bureau.
Durham	Stafford	88	21	26.6	-1.7	55	5	-4	30	21	4.95	+1.45	2.23	8.5	9	13	7	11	nw.	N. H. Agr. College.
Franklin	Merrimac	440	17	24.9	+1.3	47	8	-1	30	26	3.04	-0.44	1.04	15.0	12	14	6	11	nw.	Dr. C. P. Webster.
Glencoff	Grafton	1,650	3	15.4		46	4	-6	31	35	4.13		1.40	30.2	14	11	3	13	nw.	State Sanatorium.
Grafton	do	863	30	21.6	-0.2	45	7	-6	30	28	2.38	-0.68	0.61	13.0	9	16	3	12	nw.	P. R. Kimball.
Hanover	do	603	82	21.5	+0.1	48	5	-13	30	31	2.41	-0.23	0.69	11.1	13	4	14	13	n.	Dartmouth College.
Keene	Cheshire	506	31	24.4	-1.2	50	5	-10	30	33	2.64	-0.36	1.00	9.8	11	13	8	10	nw.	Samuel Wadsworth.
Nashua	Hillsboro	125	31																	C. B. Stevens.
Newton	Rockingham	126	28	26.5	-1.2	56	5	-3	30	26	2.71	-0.55	1.08	9.0	10	14	8	9	nw.	W. C. Gale.
Plymouth	Grafton	500	28	23.0	+0.8	42	1	-1	15	23	2.14	-1.01	0.60	12.0	10	16	1	14	w.	Mrs. Hattie G. Trow.
Vermont.																				
Bloomfield	Essex		9	18.1		47	6	-27	30	37	1.77	-0.35	0.30	13.5	15	12	2	17	s.	Lyman Falls Power Co.
Burlington	Chittenden	404	9	21.4	-1.1	50	5	-10	30	30	2.79	+1.10	1.43	20.2	14	5	10	16	nw.	U. S. Weather Bureau.
Cavendish	Windsor	910	13	22.6		49	5	-11	31	37	1.84	-0.56	0.75	7.8	10	9	6	16		Colonial Power Co.
Chelsea	Orange	840	21	20.0	-1.2	47	5	-19	30	32	2.21	-0.35	0.80	11.0	9	10	5	16	n.	W. F. Dewey.
Cornwall	Addison	517	23	22.8	-2.6	50	5	-11	30	26	1.84	-0.24	0.70	18.0	11	12	7	12	n.	C. H. Lane.
Enosburg Falls	Franklin	601	25	18.0	-4.3	53	5	-26	30	42	3.23	+0.33	0.84	17.0	14	14	5	12	nw.	J. W. Pomeroy.
Hyde Park	Lamoille	576	4	19.0		49	6	-19	30	32	2.68		0.60	28.0	13	15	0	16	nw.	A. V. Wiswell.
Northfield	Washington	876	30	19.1	-1.4	52	5	-20	30	32	1.78	-0.93	0.80	19.1	16	4	10	17	n.	U. S. Weather Bureau.
Rutland	Rutland	562		22.3		52	5	-15	30	30	1.31		0.42	14.0	13	9	5	17	nw.	George H. Ross.
Somerset	Windham	2,096	5	20.2		46	5	-13	29	32	3.80		0.95	25.0	18	11	7	13	nw.	Power Construction Co.
St. Johnsbury	Caledonia	711	23	20.1	-0.6	47	6	-22	31	36	1.80	-0.57	0.34	11.0	14	12	5	14	n.	Fairbanks Museum.
Vernon	Windham	310	1	25.1	-0.6	52	5	-9	18	48	1.83	-1.41	0.72	8.5	8	15	5	11	nw.	Conn. River Power Co.
Wells	Rutland	750	25	22.2	-1.6	50	5	-16	30	28	3.17	+0.52	1.05	14.0	12	8	9	14	sw.	E. R. Penber.
Woodstock	Windsor	700	24	23.2	-1.7	50	5	-16	30	32	2.12	-0.82	0.88	13.5	12	9	8	14		John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	27	26.7	-0.7	54	5	0	31	24	2.85	-0.69	1.03	9.5	10	14	3	14	nw.	Mass. Agr. College.
Blue Hill	Norfolk	640	32	29.0	-0.8	55	5	5	31	20	3.71	-0.05	0.87	10.9	14	12	10	9	w.	Blue Hill Observatory.
Boston	Suffolk	124	46	32.6	+1.0	59	5	10	31	20	3.00	-0.41	0.83	9.5	12	14	7	10	w.	U. S. Weather Bureau.
Chestnut Hill	do	124	36	31.5	+0.6	58	5	7	31	32	3.31	-0.60	0.98	9.0	9	26	0	11		Met. Water Board.
Clinton	Worcester	370	20	28.8		55	5	5	31	25	2.99	-0.22	1.12	10.5	10					Do.
Concord	Middlesex	139	26	27.8	-0.3	58	5	-1	30	25	2.57	-0.71	0.96	9.0	11	13	8	10	nw.	Fred A. Tower.
Fall River	Bristol	200	50	31.8	-2.4	56	5	10	31	21	3.71	-0.61	1.10	13.0	10	11	11	4	nw.	C. V. S. Remington.
Fitchburg	Worcester	550	33	27.6	-0.9	55	5	3	31	19	2.47	-1.08	0.64	14.5	10	15	7	9	nw.	Dr. A. P. Mason.
Framingham	Middlesex	160	36	29.4	+0.9	58	5	6	31	20	3.13	-0.84	1.22	9.8	9					Met. Water Board.
Lawrence	Essex	51	32	28.4	-0.2	56	5	4	30	21	3.10	-0.27	0.88	12.0	12	16	6	9	w.	Essex Company.
Lowell	Middlesex	100	31	29.1	-0.3	55	5	2	30	25	3.16	-0.58	1.05		10					Props. Locks & Canals.
Nantucket	Nantucket	47	30	34.5	-2.2	55	5	13	31	19	3.24	-0.40	1.02	5.4	14	12	8	11	nw.	U. S. Weather Bureau.
New Bedford	Bristol	88	104																	City Engineer.
Plymouth	Plymouth	50	31	29.6		58	5	6	30	29	3.88	-0.08	1.04	10.0	9	18	1	12	w.	Miss L. B. Knapp.
Provincetown	Barnstable	40	29	34.2	-0.9	51	5	14	31	18	4.10	+0.44	1.27	6.0	11	14	6	11	w.	Gideon Bowley.
Rockport	Essex	25	14	32.4		51	5	1	31	29	3.94	+1.03	8.0	12	18	3	10	nw.	U. S. C. G. Station.	
Rutland	Worcester	1,160	14	24.8		53	5	8	30	24	3.25	+1.03	13.6	10	17	1	13	13		State Sanatorium.
Springfield	Hampden	199	6	31.2	+2.6	57	5	9	30	21	3.88	-0.44	1.00	11.1	11	12	10	9	nw.	U. S. Army.
Turners Falls	Franklin	200	30	27.4	+1.9	53	5	-1	30	28	3.46	+0.55	0.94	9.5	10	14	4	13		Turners Falls Co.
Westboro	Worcester	258	42	32.3	+2.1	62	5	10	31	22	3.00	-0.60		10.5	10					Miss E. W. Newcomb.
Williamstown	Berkshire	711	35	25.8	-2.1	51	5	-1	18	24	4.28	+1.28	0.80	21.0						



Daily Precipitation for December, 1916.

Stations.	Watersheds.	Day of month.																															Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Maine.																																		
Ashland	St. John	1.02			.05	.12	.08	.29			.03		.20	.18			.41	.16	.08	.03	.05		.42	.67			.02	T.	.01				3.82	
Bar Harbor	Coast																																	
Cambridge	Kennebec	1.75			.30	.38							.30	.85									1.28				.05						4.36	
Cornish	Saco	.38	T.		.19	.08					.16		1.10				.40	1.20					.06	1.09		.05							4.76	
Danforth	Penobscot	1.37	.34		.34	.30	.13	.17					.37	.70			*	1.15		.05			.06	1.14	.24		.08						6.38	
Eastport***	Coast	.48	T.		.08	.10	.18	.18		T.	.01		.57	.02			.59	1.28		.01			T.	.29	.04		.02		.11	.02			3.98	
Eustis	Kennebec	.85	.01	T.	.02	.13	.02	T.			.05		.14	.30			T.	.92	T.		T.	.04	.01	T.	.92	T.	.05		T.	.10	T.		3.56	
Fairfield	do																																	
Farmington	do	1.00	T.		.06	.15					.25		.80	.25			.03	.90			.02		T.	.75	.35		.02		.02	.02			4.62	
Gardiner	do	1.28			.10	.14	.04	T.			.16		.60	.38			1.40				T.	T.	1.37	.03			.09	.08	.04				5.71	
Greenville**	do	.65	T.		.11	.27	T.	T.			.02		.70				.35	1.40			.05		.02	1.23			.02		.05	T.			1.87	
Houlton	St. John	1.90		.05	.03	.33	.12	.10			.30		.70				1.20																1.13	
Howe Brook	Penobscot	1.18											.20		.60		T.	2.20	.20					.08	1.30				.20				6.57	
Lewtown††	Kennebec	.50	T.		T.	.40	.06	T.		T.	.12		.35	.11			T.	.80			.05	.02	.06	.10	.11		.09	T.	.05			T.	3.12	
Lewiston	Androscoggin	.52	T.		.07	.16				.06	.09		1.19	.08			.23	.41			.04			.12	1.36		.03		.10				1.46	
Madison	Kennebec		T.		.16	.15							.26	.90			*	.69	.14			.02		.07	1.20			.04					3.63	
Millinocket	Penobscot	.27		.25	.17	.04				T.		.12					1.43	.41		T.	T.			.09	1.44				.09	T.			5.23	
North Bridgton	Saco	.35	T.		.10	.13	T.				.14		.65	.27			.20	1.20					T.	1.32	.06				.08				4.50	
Orono	Penobscot	.60			.18	.36	.06				.10		.50	.80			*	.80															5.50	
Patten	do	.10			.40	.20	T.						.60				*	3.00					.60		1.10								4.90	
Portland***	Coast	.14	T.		.06	.10	.01				.14	.03	.46	1.08			T.	1.78						.06	1.40		.09		.04				6.69	
Presque Isle	St. John	.60	T.	T.		.50	.30	.10	T.		T.		.30	.50			T.	1.80	.20	.10	T.			.46	.70			.20		.20			5.90	
Rumford	Androscoggin	.04	T.		.05	.09	T.				.18	T.	.04	.70			.26	.46						.03	1.35		.08		.02				3.30	
Van Buren	St. John	.94	.05		.27	.35					.10		.12	.62			T.	.50	.58	.52				1.25			.23		.08	T.			5.61	
Winslow	Kennebec		.03		.06	.12	.11			.12			.69				*	1.75			.03			1.20	1.25		.01						4.12	
New Hampshire.																																		
Alstead Center	Connecticut		T.		.03	.14	T.			.22	.02		.84	.02			.13	.07					.02	.64		.01		.13					2.27	
Bethlehem	do		.10		T.	.15	.08	.04		.09	.08		.55	.25			T.	.60					T.	.37	.50		.03						2.84	
Brookline	Merrimack			.07						.22		.44	.48				.60						.10	1.00			.03						2.92	
Concord***	do		T.		.09	.16				.02			.18	.35			.39	.05					.07	.86		.02		T.					2.21	
Durham	do	.41			.28					.18			.15	1.08			.74							1.02		.03		.06					4.55	
Franklin	do			.07	.16	.04				.18	.10		1.04	T.			.22	.14					.05	.92		.02		.10	T.				3.04	
Glencliff	do	.19	.05		.08	.15				.10		.20	.80				*	.90					.05	1.40				.05	.05	.06			4.13	
Grafton	do			.02	.40	.05				.20			.61				.10	.40					.57										2.38	
Hanover	Connecticut		.03		.05	.11	T.			.18	.01		.50				.13	.69					.02	.54	.04		.01		.03				2.41	
Keene	do			.03	.23					.23	.03		1.00				.17	.09					.08	.62	T.		.04		.12				2.64	
Nashua	Merrimack																																	
Newton	do		.05	.10						.26		.45					.60						.04	1.08			.02		.10	.01			2.71	
Plymouth	do		.06		T.	.29	T.			T.	.23		.41	.07			.12	.18					T.	.60	.11			.12	T.				2.14	
Vermont.																																		
Bloomfield	Connecticut		.03		.04	.10	.17	.05			.26		.20	.10			.29	T.					.03	.09	.30		.05		.05		.01		1.77	
Burlington***	Champlain	.02	.07	T.	.06	.27	T.			.29	T.	.01	.37	.04	T.		.01	.08					.02	1.43		.08		.04	T.				T.	2.79
Cavendish	Connecticut				T.	.09	.02			.14			.30	.01			.07	.20					.01	.75			.25		.04				1.84	
Chelsea	do		.06		.01	.30	.05			.12			.55				.20						.01	.80			.12						2.21	
Cornwall	Champlain		.07		.05	.25	.15			.15			.20	.05			.10	.07					T.	.70			.05	T.					1.84	
Enosburg Falls	do		.09		.04	.24	.19	.06		.37			.43	.06	T.		T.	.23					T.	.84	.50		.11	.06	.01				3.23	
Hyde Park	do		.15		.20	.32	.21			.05			.39	.15			T.	.10					T.	.60	.40		.04	.05	.02				2.68	
Northfield***	Champlain	.04	.10		.03	.14	.08	T.		.08	.02	.02	.26		T.		.05	.03	T.				T.	.78	.02		.06	.06	.01				1.78	
Rutland	do	.05	T.	.03	T.	.04	T.	.02		.24			.40	.42			.10	.02						.22	.04		.04		.08	.01			1.31	
Somerset	Connecticut	.11	.05	.04	.01	.33	.23	.11		.35			.23	.47			.03	.50	.03				.09	*	.95		.17		.10				3.80	
St. Johnsbury	do		.05	T.	.04	.13	.02	T.		T.	.11		.27	.20			.02	.14					.06	.34	.31		.07		.04	T.			1.80	
Vernon	do		.19							.23		.38	.10				.10						T.	.72	.36	.05							1.83	
Wells	Champlain		.06	.01	T.					.31	.22		.35	.32			.15						T.	1.05	.36		.08	.16	.05				3.17	
Woodstock	Connecticut		.02		.02	.14	T.			.19	.03		.35				.10	.12					T.	.88	.17		.04	.06					2.12	
Massachusetts.																																		
Amherst	Connecticut				T.	.05				.25		.03	1.03				.42						.04	.86		.02		.09	.06				2.85	
Ashland	Merrimack				*	.14				.26			.66				*	.77					*	1.20			*	.17					3.20	
Bakers Bridge††	do	1.20			.05								*	.62			.18	.13					.23	.85			T.	.08					2.34	
Bedford	do	.04			T.					.23	.03	.16	.36				.35	.24					.18	.72	.40		.03	.04	.04				2.47	
Blue Hill	Coast	.18		.02	.06	T.				.23	.11	.02	.82				.60	.27					.29	.87			.02	.10	.12				3.71	
Boston***	do	.02		T.	.06					.25		.17	.58				.62	.07					.23	.83			.01	.08				</		

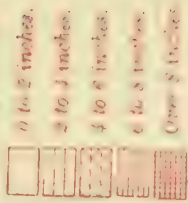


## Daily Temperatures for December, 1916.

Stations.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean	
Maine.																																		
Cornish	Maximum	47	46	48	33	41	52	57	51	38	45	48	34	36	33	22	28	34	36	29	37	27	39	38	39	34	34	33	26	46	30	25	25	37.3
	Minimum	31	26	21	16	31	30	30	21	20	30	19	30	10	0	4	16	5	-5	-2	-5	3	24	20	17	16	4	6	24	7	-6	-11	14.0	
Eastport	Maximum	52	35	31	42	49	45	42	40	37	36	33	38	24	17	33	38	20	23	30	29	32	46	41	24	21	22	36	37	25	11	12	32.3	
	Minimum	34	31	24	26	42	35	34	36	33	30	29	24	11	7	17	20	12	12	17	22	32	46	41	24	21	22	36	37	25	-1	0	20.8	
Farmington	Maximum	42	35	35	30	36	45	41	42	32	35	36	36	29	21	16	26	21	20	24	27	20	35	40	23	27	22	24	37	27	9	18	29.4	
	Minimum	30	23	23	14	13	32	30	28	20	26	24	24	10	-2	-8	14	5	10	8	14	0	19	17	15	13	10	-2	15	4	0	-1	13.0	
Greenville	Maximum	33	28	30	32	39	40	35	36	34	31	28	25	17	18	18	18	15	16	12	20	20	36	36	16	19	12	16	31	22	4	7	24.0	
	Minimum	27	24	18	6	32	33	31	29	24	25	17	15	4	1	-2	15	7	4	8	10	-1	19	9	9	6	0	-3	10	-4	-8	-7	11.5	
Millinocket	Maximum	43	34	31	33	37	40	42	33	38	33	31	22	21	20	19	23	20	20	19	25	19	32	38	21	23	20	16	34	25	7	4	26.9	
	Minimum	32	28	23	10	31	31	30	29	27	27	22	15	10	-2	-5	16	10	8	12	14	-5	18	10	12	4	7	-4	13	0	-6	-5	13.3	
Orono	Maximum	53	33	30	38	48	48	45	42	42	40	38	38	38	25	22	24	37	27	27	32	32	36	44	30	32	25	26	34	34	18	16	34.7	
	Minimum	32	25	22	15	31	34	38	22	33	31	28	25	24	16	-3	3	17	11	8	11	16	1	18	14	14	11	8	1	15	4	-2	13	16.8
Portland	Maximum	41	38	41	44	41	46	43	44	35	38	42	34	29	-7	21	26	28	29	26	31	26	44	29	29	31	26	32	41	23	19	19	33.4	
	Minimum	32	31	30	26	41	33	34	32	28	29	27	23	17	11	16	17	12	10	12	13	17	26	21	20	19	15	13	26	10	6	6	21.2	
Presque Isle	Maximum	38	36	26	32	39	41	37	37	35	37	32	32	20	20	15	22	20	23	28	30	26	34	38	18	10	17	13	30	-10	-12	8	25.4	
	Minimum	31	25	12	2	32	39	32	32	32	32	27	12	8	5	-10	-10	15	10	15	18	20	19	23	15	5	-7	7	-13	15	-7	-4	-10	12.5
Rumford	Maximum	89	34	34	34	34	42	44	41	41	34	34	34	34	24	24	22	22	20	24	25	36	22	23	26	19	14	8	2	15	5	-1	0	17.4
	Minimum	32	31	21	17	31	31	31	31	31	28	22	15	9	0	18	12	11	16	10	15	25	17	19	14	8	2	15	5	-1	0	7	26.6	
Van Buren	Maximum	43	35	25	30	37	31	39	37	40	37	39	17	20	14	17	21	21	17	32	30	27	25	35	24	25	13	15	32	33	7	7	26.6	
	Minimum	31	22	19	2	29	33	33	32	30	28	14	7	10	4	-1	11	9	11	15	17	17	21	17	10	14	5	-10	8	-11	-8	-10	12.9	
New Hampshire.																																		
Alstead Center	Maximum	49	36	36	41	48	48	37	36	40	35	35	33	31	22	20	16	19	20	19	20	18	33	28	22	24	14	28	36	27	15	15	28.9	
	Minimum	29	28	29	21	41	40	30	29	27	26	25	22	20	14	10	10	10	4	5	10	7	12	17	15	17	14	5	8	25	9	-2	-4	17.0
Bethlehem	Maximum	57	29	28	39	49	49	40	30	32	34	33	34	32	28	17	15	15	17	15	22	33	38	33	22	17	12	20	35	20	6	14	26.3	
	Minimum	29	24	18	15	35	30	29	21	22	25	24	25	3	-3	6	10	-2	-5	0	-2	5	17	9	8	6	-7	5	19	-6	-15	-14	10.5	
Concord	Maximum	41	40	39	33	48	48	39	37	41	39	37	41	34	28	-2	25	24	30	28	38	29	27	28	21	26	40	18	16	17	19	31.8		
	Minimum	33	30	26	22	33	33	33	27	24	29	26	27	11	9	16	10	10	15	10	15	10	28	20	21	15	10	15	24	7	2	3	19.3	
Franklin	Maximum	42	38	40	31	38	46	37	47	38	37	44	34	36	30	18	25	27	23	31	26	36	36	22	28	23	20	39	30	10	-1	1	18.0	
	Minimum	31	28	28	19	31	34	32	28	23	29	23	30	18	4	5	16	7	7	15	15	7	26	17	19	16	9	12	20	-10	-1	1	25.1	
Hanover	Maximum	39	36	37	37	48	48	38	38	39	36	40	33	30	20	21	21	23	22	24	22	39	30	25	23	16	26	37	25	11	13	29.5		
	Minimum	28	27	24	18	35	32	32	27	22	26	19	29	13	-2	-2	4	15	-3	-8	4	-5	6	22	16	16	4	4	25	1	-13	-13	13.5	
Nashua	Maximum	42	34	34	30	35	42	35	41	38	34	36	34	29	25	13	19	20	20	20	25	25	40	40	24	34	18	19	37	29	10	16	29.1	
	Minimum	31	26	30	15	29	30	38	26	21	29	27	25	15	7	-1	14	9	7	14	12	5	22	17	19	14	7	13	18	8	0	0	16.9	
Vermont.																																		
Burlington	Maximum	39	35	35	41	50	48	35	38	43	33	34	29	19	24	18	18	20	17	21	20	32	34	23	23	18	10	34	36	7	5	18	27.9	
	Minimum	31	29	25	25	47	44	31	30	31	28	27	18	3	2	11	11	4	-3	9	0	11	20	16	12	8	1	4	34	21	-7	-10	-10	14.9
Enosburg Falls	Maximum	38	45	35	43	53	51	33	38	44	35	31	31	18	15	18	15	16	18	15	16	31	38	32	22	16	10	34	34	20	4	15	27.2	
	Minimum	31	32	33	18	41	32	29	27	25	23	18	-3	-11	6	-1	-14	-20	-3	-13	2	29	12	5	4	-18	-8	20	-13	-26	-25	8	7.9	
Northfield	Maximum	36	34	32	38	52	41	33	35	37	31	36	31	22	21	19	17	18	20	21	21	25	34	23	23	19	13	30	38	21	9	14	27.4	
	Minimum	26	21	14	12	37	30	30	24	25	25	27	18	7	-7	9	12	-1	-4	3	-3	3	19	15	7	11	-3	1	20	-11	-20	17	10.9	
St. Johnsbury	Maximum	42	34	33	37	47	44	34	38	38	37	40	33	32	19	15	17	23	24	20	19	30	36	37	25	20	17	20	33	27	7	10	28.4	
	Minimum	33	28	27	14	35	34	32	34	22	29	27	20	12	-5	2	11	0	-12	-1	-9	1	20	14	15	8	-5	1	21	0	-20	-22	11.8	
Wells	Maximum	40	33	34	46	50	44	34	35	40	36	32	31	30	25	20	20	15	13	20	20	33	36	32	24	22	12	40	34	30	8	14	29.1	
	Minimum	31	26	26	28	42	32	29	25	30	22	22	26	12	7	8	10	2	-1	8	2	1	30	12	14	8	2	0	26	2	-10	-9	15.3	
Massachusetts.																																		
Amherst	Maximum	42	42	44	44	54	47	43	50	38	37	37	31	31	29	19	23	26	28	28	28	29	38	28	30	34	27	33	38	25	21	23	33.9	
	Minimum	34	30	31	37	38	36	31	26	27	28	22	25	11	8	14	11	8	4	11	4	11	24	25	22	19	6	17	25	8	1	0	19.5	
Blue Hill	Maximum	43	42	40	48	55	50	40	42	36	40	37	32	29	30	24	24	25	25	30	33	48	32	30	34	23	18	16	28	15	7			



Scale of Shades.





Day of month.

Special River Rainfall Stations

† Post-office addresses of these stations are as follows: Long Bow, Rehoboth, Mass.; Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.; Moss Brook, Wendell Depot, Mass.; Priest Brook, Winchendon, Mass.; Sewall's Falls, Concord, N. H.

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U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU

CHARLES F. MARVIN, CHIEF

UNIVERSITY OF MARYLAND  
FEB 12 1917

# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

ANNUAL, 1916

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BY

JOHN W. SMITH

METEOROLOGIST

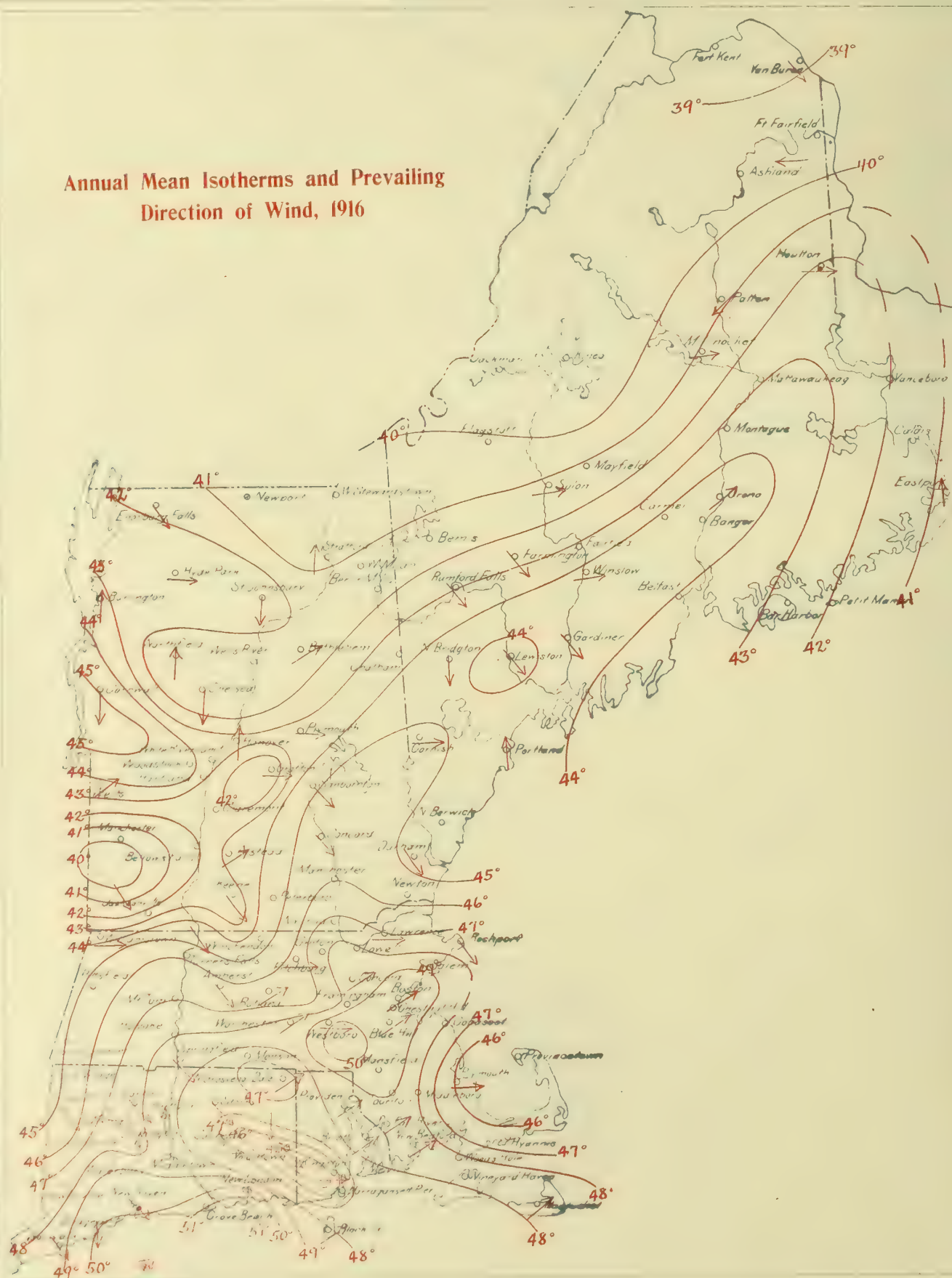
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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
FEBRUARY 9, 1917



# Annual Mean Isotherms and Prevailing Direction of Wind, 1916





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

VOL. XXVIII. BOSTON, MASS., ANNUAL, 1916. No. 13.

## GENERAL SUMMARY.

The average temperature of the year was somewhat below and the precipitation and sunshine practically the same as that of 1915. Mild weather for the season prevailed through January and into February. The remainder of the winter, the spring and early summer were colder than usual, with more than the average amount of precipitation. The snowfall in the late winter and early spring was greater than for a number of years, and the total rainfall for May, June and July, was the greatest for these months, with two exceptions, since 1888. Seasonable temperature, with precipitation below the normal, prevailed during the late summer and fall.

The annual mean temperature (entire district),  $45.2^{\circ}$ , was  $4^{\circ}$  below the normal, based on stations having ten or more years' records, and  $1.6^{\circ}$  below the mean of the year 1915.

Annual means by States: Maine,  $45.2^{\circ}$ ; New Hampshire,  $43.2^{\circ}$ ; Vermont,  $42.7^{\circ}$ ; Massachusetts,  $47.5^{\circ}$ ; Rhode Island,  $47.1^{\circ}$ ; Connecticut,  $48.0^{\circ}$ .

The highest annual mean,  $51.0^{\circ}$ , at New London, Conn.; west annual mean,  $39.0^{\circ}$ , at Van Buren, Me. Highest recorded,  $106^{\circ}$ , at Torrington, Conn. on August 23; lowest recorded,  $-34^{\circ}$ , at Enosburg Falls, Vt. on February 14. Annual range for New England,  $140^{\circ}$ ; greatest local annual range,  $88^{\circ}$ , at Van Buren, Me.; least local annual range,  $76^{\circ}$ , at Block Island, R. I. and Nantucket, Mass.; greatest local daily range,  $60^{\circ}$ , at Woodstock, Vt. on August 15.

The annual average precipitation (entire district), 40.50 inches, was 0.94 inch below the normal, based on stations having ten or more years' records, and 0.01 inch above the average for the year 1915.

Annual State averages: Maine, 42.87 inches; New Hampshire, 41.73 inches; Vermont, 35.62 inches; Massachusetts, 41.45 inches; Rhode Island, 41.76 inches; Connecticut, 41.32 inches. The greatest annual amount, 55.19 inches, at Cornish, Me.; least annual amount, 26.28 inches, at Cornwall, Vt. Greatest local monthly amount, 11.75 inches, at Kingston, R. I. in July; least monthly amount, 0.57 inch, at Block Island, R. I. in August; greatest amount in any 24 consecutive hours, 6.72 inches, at Durham, N. H. on May 17. Average number of days with 0.01 inch or more, 130.

Average annual mean pressure, 30.00 inches. Highest recorded, 30.78 inches, at Burlington, Vt. on January 29; lowest recorded, 28.24 inches, at Eastport, Me. on December 16. Annual range for New England, 2.54 inches.

Prevailing direction of wind, northwest; maximum velocity, 82 miles per hour, on December 23, at Providence, R. I.

## THE WEATHER BY MONTHS.

**JANUARY.**—The month, as a whole, was warmer than usual. During the first and second decades the temperature was generally normal, with brief warm and cold periods. The third decade, however, was much above the normal, with temperature above  $40^{\circ}$  nearly every day except in the northern portion. The maximum temperature for the month,  $70^{\circ}$ , was the highest of record in January since 1888. Zero temperatures, with a few exceptions, were confined to the northern States. The precipitation was much below normal, the average for the section being the smallest for any January during the past 29 years. The snowfall was less than usual and occurred in small amounts. During the last half of the month the ground was bare in the northern portion of the section.

**FEBRUARY.**—The period of mild weather that prevailed during the last decade of January continued through the first week of February. During the remainder of the month the temperature was generally below the normal, the coldest periods occurring on the 14th and 15th, 21st and 22d, when minima of zero or below prevailed in the northern States and at scattered stations in the southern portion of the section. Precipitation occurred frequently and was well distributed through the month, although unevenly over the section, the amount in the southern portion being nearly twice that in the northern portion. The snowfall was the greatest since 1899; the heaviest storms were on the 2-3d and 12-13th, when from 6 to 12 inches fell. The amount on the ground increased until about the middle of the month, afterwards diminishing until the close of the month, when little or none remained on the coast, and from 6 to 12 inches in the interior. The cold weather during the latter part of the month permitted the harvesting of an excellent crop of ice.

**MARCH** was featured by unusually low temperatures and a heavy snowfall, the average temperature being the lowest and the snowfall the greatest for any month of the name within the record of the section averages beginning in 1888. The temperature during the first three weeks was below normal nearly every day, with an unusually large number of days with minima of zero or below, particularly in the northern portion of the section. The heaviest snowstorms, with amounts exceeding 6 inches, occurred on the 7-9th and 13-16th, with considerable drifting. The depth of snow on the ground gradually increased until the 22d, when there was from 1 to 2 feet in the southern and from 3 to 5 feet in the northern portion of the section. The snow melted rapidly during the last week, and at the end of the month none remained except in the northern States.

**APRIL.**—The average temperature and precipitation were near the normal. The snowfall, however, exceeded that of any previous April in the record of the section, except in 1907. The heaviest fall was on the 9th, when from 4 to 6 inches fell over the greater portion of the section, and 12 inches in some localities in the interior. The amount of sunshine was less than normal, and the season at the close of the month was less advanced than usual.

**MAY.**—Cloudy and cool weather prevailed through the month, with precipitation much above the normal. At very few stations was the precipitation less than three inches. The rainfall on the 16-17th was particularly heavy in southwestern Maine and southeastern New Hampshire, where amounts exceeding 4 inches in 24 hours were general, resulting in much damage to highways and river property. The greatest amount of this storm was 6.72 inches, at Durham, N. H. Heavy and killing frosts occurred in many localities during the first half of the month, but caused little damage owing to the retarded condition of vegetation. At the close of the month the season was considered to be about two weeks later than usual.

**JUNE.**—Cool and wet weather prevailed through the month. With one exception the average temperature was the lowest and the average precipitation the greatest of any June of record. The conditions were favorable for the growth of grass, but unfavorable for other crops.

**JULY.**—The average temperature was above and the amount of sunshine below the normal. The rainfall was above the normal, reaching an excess of 6.06 inches in Rhode Island. The total rainfall for the month at a number of stations in the southern portion of the section exceeded 10 inches.

**AUGUST.**—Warm and pleasant weather prevailed. The average temperature was higher and the rainfall lower than that of any other August for a number of years.

**SEPTEMBER.**—September was warm and seasonable, with conditions favorable for the maturing and harvesting of all crops. Killing frosts occurred on several dates in scattered localities, but caused no material damage.

**OCTOBER.**—The temperature was generally somewhat above the



## KILLING FROSTS.

MONTHLY AVERAGES AND EXTREMES, 1916.

SUPPLEMENTAL RAINFALL DATA, 1916.

Stations.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Av'l.
Maine.													
Ashland	1.48	1.28	0.69	1.07	2.65	3.23	5.75	1.21	4.40	2.54	2.05	3.82	30.
Brownville									4.02	2.93	4.11		
Cambridge	1.49	2.56	1.62	0.89	5.11						3.36		
Danforth	1.90	3.18	1.60	1.82	1.52	4.64	4.88	1.92	3.94	3.81	1.52	6.38	39.
Eustis	1.73	2.85	1.65	2.86	4.75	5.14	3.82	5.58	2.41	1.66	3.42	3.56	39.
Howe Brook	0.57	1.66	2.50	1.50	2.39	2.77	5.13	1.76	3.1	3.38	2.31	6.57	33.
Lewtown				3.21	4.35	3.22		4.19	4.02	1.66	2.63	3.12	
Mattawamkeag									3.19	3.06	2.23		
Oquossoc	1.43	2.60							0.16	2.41	2.40		
New Hampshire.													
Brookline	1.56	5.30	3.50	4.80	4.47	6.48	4.92	2.61	4.19	1.44	3.11	2.92	45.
Franklin Junction									5.29	1.77	2.65		
Lancaster									3.71	1.62	3.40		
Manchester									4.44	1.32	1.88		
Sewall's Falls									5.95	1.48	2.67		
West Stewartstown									3.71	1.99	2.39		
Vermont.													
Bellows Falls									5.55	1.45	3.13		
Wells River									3.82	2.48	3.86		
White River Junction									5.29	0.99	2.80		
Massachusetts.													
Ashland	1.54	5.27	3.97	4.06	3.28	4.74	4.94	1.77	1.50	1.47	2.09	3.20	37.
Bakers Bridge	1.10	4.21	2.68	4.27	3.05	4.96	4.10	1.82	2.21	1.09	2.20	2.34	34.
Bedford	1.47	5.15	2.70	4.17	3.24	5.11	2.55	2.42	2.13	0.93	2.25	2.47	34.
Brocton	1.75	2.55	3.59	3.20		4.88	6.26			2.38	1.76	3.58	
Haverhill	1.56	4.13	3.09	4.19	5.02	6.60	4.91	1.78	1.99	0.88	1.89	2.82	38.
Hingham	1.41	5.97	3.88	5.52	4.07	5.44	5.99	2.43	2.14	2.91	2.48	3.38	45.
Holyoke						8.10	5.16	0.66	3.63	1.13	2.84		
Hyannis								0.66	3.63	1.82	1.32	4.37	
Jefferson	1.77	6.43	3.99	3.78	4.24	6.61	6.53	1.78	4.31	1.53	3.43	3.07	47.
Lake Cochituate	1.52	5.66	4.62	4.12	3.20	5.45	3.89	1.75	1.30	2.28	2.18	3.18	38.
Leominster	1.51	5.80	2.95	3.73	4.32	7.00	5.43	2.01	4.79	2.24	3.12	3.00	41.
Mass. Brook										1.21	3.64	2.41	
Priest Brook										1.31	2.79	2.28	42.
Princeton	1.54	5.75	2.44	3.14	3.72	6.85	5.93	1.74	4.14	1.47	3.07	2.57	42.
Somerset	1.41	4.39	2.92	4.00	3.74	4.29	10.66	1.31	1.12	2.29	2.79	3.14	42.
Spot Pond	1.55	5.71	4.41	5.26	3.92	5.59	3.28	2.32	1.80	1.38	1.84	3.19	40.
Sterling	1.55	5.72	3.03	3.73	1.90	6.26	4.67	1.62	3.76	1.25	3.22	2.84	39.
Taunton	2.11	4.94	3.82	5.12	4.13	4.60	9.41	1.60	2.36	3.27	2.87	4.27	48.
Winchendon	1.49	4.75	2.70	2.89	3.35	4.56	6.32	3.93	8.01	1.50	3.67	2.86	41.
Rhode Island.													
Greene	1.24	5.26	2.25	3.15	4.48	5.32	8.53	2.34	1.33	2.61	2.28	3.08	45.
Hope Valley	1.37	9.94	3.07	3.56	4.37	5.25	8.81	2.28	1.14	3.76	2.65	3.00	45.
Pawtucket	1.57	6.00	3.45	3.72	4.42	4.70	8.41	1.72	0.83	2.73	1.73	3.14	45.
Wallum Lake	1.64	3.10	2.20	3.27	4.36	6.15	4.70	2.27	3.17	1.74	3.63	3.40	33.
Connecticut.													
East Hartland		5.55		3.11	4.60	4.70	5.84	2.16	5.55	1.38	3.63	3.79	
Falls Village	1.48	3.77	2.92	2.97	3.38	3.87	7.38	1.30	6.23	0.96	3.58	3.02	42.
Lake Konomoc	1.64	6.24	4.79	0.81	4.55	5.63	8.45	1.70	1.35	2.52	2.37	3.87	43.



### Climatological Data for the Year 1916.

Stations.	Counties.	Elevation, feet.	Temperature (degrees Fahrenheit).					Precipitation (inches).							Sky.				Prevailing direction of wind.	
			Length of record, years.	Annual mean.	Highest.	Date.	Lowest.	Date.	Length of record, years.	Total for the year.	Greatest monthly.	Month.	Least monthly.	Month.	Total snowfall.	Number rainy days.	Number clear days.	Number partly cloudy days.		Number cloudy days.
Maine.																				
Bar Harbor §.	Hancock	20	30						30											
Cornish	York	778	61	45.4	96	July 12	-18	Jan. 15	61	55.19	7.83	June	2.09	Jan.	131.5	120	122	113	131	w.
Eastport	Washington	53	44	41.0	86	July 12	-12	Feb. 21	44	31.82	4.87	July	1.38	May	87.8	145				
Fairfield	Somerset	90	31		91	July 12	-22	Jan. 18	31											s.
Farmington	Franklin	450	19	42.2	94	July 20*	-18	Jan. 9*	26	51.93	7.50	Aug.	1.49	Jan.	107.0	151	124	117	125	d.w.
Gardiner §	Kennebec	163	24	44.3	94	July 12	-19	Jan. 18	24	43.26	5.71	Dec.	1.87	Jan.	105.5	149	180	53	133	d.w.
Greenville	Piscataquis	1,140	12	39.5	92	July 20	-22	Feb. 21	12	43.76	5.60	July	2.35	Jan.	117.8	140				
Houlton	Aroostook	362	14	42.7	95	July 20	-19	Feb. 12*	14	28.11	4.32	July	1.09	May	127.0	72	149	116	97	w.
Langtown	Franklin	1,500				July 23	-13	Feb. 14*												
Lewiston	Androscoggin	185	33	43.9	92	July 12*	-13	Feb. 14*	43	45.26	6.46	May	2.18	Jan.	111.1	138	133	126	107	d.w.
Madison §	Somerset	257	13	41.9	94	July 21	-22	Jan. 9	13	50.55	6.93	Aug.	1.87	Jan.	104.2	123	219	49	98	w.
Millinocket	Penobscot	386	13	41.4	93	July 20*	-18	Feb. 24	13	40.83	5.68	July	1.57	Jan.	90.1	142	181	30	155	w.
North Bridgton	Cumberland	450	23	44.5	97	July 12*	-16	Jan. 18	23	54.13	7.83	Aug.	1.67	Jan.	123.5	138	136	117	113	n.
Orono §	Penobscot	129	47	44.7	94	July 12*	-14	Jan. 18	48	40.90	5.50	Dec.	1.60	Nov.	115.0	110	213	52	101	s.w.
Patten	do	550	14	40.8	98*	July 20*	-25	Jan. 18	14	36.74	6.20	July	0.70	Jan.	92.5	55	146	16	153	de.
Portland	Cumberland	99	45	44.5	94	July 12	-5	Feb. 21	46	46.83	6.32	June	1.29	Oct.	107.2	147	137	87	112	s.
Presque Isle	Aroostook	1,000	7	39.8	96	July 20	-28	Feb. 22	7	33.55	5.90	Dec.	1.10	Mar.	117.0	34	172	97	97	n.w.
Rumford §	Oxford	505	23	43.2	92	July 12*	-12	Feb. 21	23	47.45	6.97	June	1.33	Jan.	99.1	144	214	52	100	n.w.
Van Buren	Aroostook	510	12	39.0	95	Aug. 20	-33	Feb. 12	12	39.79	7.34	July	1.40	Apr.	97.7	109	148	67	151	n.w.
Winslow	Kennebec	90	21	44.4	97	Aug. 21	-16	Feb. 15	21	38.86	5.11	Nov.	0.94	Mar.	80.0	105	169	86	111	w.
New Hampshire.																				
Alstead Center.	Cheshire	1,120	12	43.9	91	Aug. 21	-11	Feb. 14*	12	42.71	6.54	Sept.	1.28	Jan.	141.0	140	205	57	101	s.w.
Bethlehem	Grafton	1,470	24	41.1	90	July 12	-19	Feb. 14	24	42.47	6.32	June	1.19	Oct.	112.5	141	169	69	128	s.w.
Concord	Merrimac	350	56	45.1	94	July 12*	-15	Feb. 15	56	40.13	6.26	June	1.22	Jan.	97.7	135	144	95	127	n.w.
Durham §	Stafford	88	21	44.8	95	Aug. 21*	-13	Feb. 15	22	43.47	7.78	May	0.60	Jan.	75.0	105	146	108	112	n.w.
Franklin	Merrimac	440	17	45.0	94	July 20*	-15	Feb. 15	17	46.90	9.04	June	1.58	Jan.	107.0	146	162	86	118	n.w.
Glencoff	Grafton	1,650	3	40.1	89	July 20*	-17	Feb. 14*	7	44.08	5.33	June	1.99	Jan.	128.1	131	141	90	130	n.w.
Grafton	do	863	30	42.0	92	July 12*	-20	Feb. 15	30	35.26	4.63	June	0.94	Jan.	100.0	105	208	52	106	w.
Hanover	do	603	82	43.6	96	Aug. 21	-20	Jan. 15	76	38.94	5.54	July	1.04	Oct.	101.0	152	73	138	155	s.
Keenes	Cheshire	506	31	42.8	94	Aug. 21	-19	Feb. 15	29	41.80	6.00	Sept.	1.27	Oct.	89.5	136	165	95	106	n.w.
Nashua §	Hillsboro	125	31		97	July 12*			31											
Newton	Rockingham	126	28		92	July 12*		Feb. 15	28											
Plymouth	Grafton	500	28	43.7	94	July 19*	-14	Feb. 15	29	41.52	6.22	July	1.47	Oct.	104.1	122	198	20	148	w.
Vermont.																				
Bloomfield	Essex		9	40.6	91	Aug. 21	-27	Dec. 30*	8	38.71	5.62	June	0.80	Mar.	99.2	158	157	60	149	s.
Burlington	Chittenden	404	9	43.6	94	Aug. 20	-15	Feb. 14	10	28.45	4.69	May	0.87	Jan.	92.9	157	84	120	162	s.
Cavendish	Windsor	910	13	42.8	95	July 12	-24	Feb. 13	13	33.51	5.73	June	1.30	Aug.	109.3	122	130	126	110	n.
Chelsea	Orange	840	21	41.6	93	Aug. 21*	-26	Feb. 14	21	32.65	5.10	June	1.36	Oct.	110.0	116	132	67	167	n.
Cornwall	Addison	517	23	45.1	104	Aug. 21	-14	Feb. 14	30	26.28	3.61	June	1.24	Jan.	124.0	120	128	118	112	n.
Enosburg Falls	Franklin	601	25	41.8	93	July 24*	-34	Feb. 14	25	36.97	5.95	Sept.	0.97	Mar.	91.0	153	168	97	101	n.w.
Hyde Park	Lamoille	576	4	42.3	96*	Aug. 19	-23	Jan. 15	4	35.21	5.30	June	1.36	Mar.	141.0	145	123	80	156	w.
Northfield	Washington	876	30	41.0	92	Aug. 22	-24	Feb. 14	30	31.36	4.47	June	1.14	Jan.	95.6	157	77	97	192	s.
Rutland	Rutland	562																		
Somerset	Windham	2,096	6	39.9	90	Aug. 21	-17	Feb. 14	5	50.49	5.56	Nov.	2.20	Aug.	148.8	179	121	123	122	n.w.
St. Johnsbury	Caledonia	711	23	43.6	96	Aug. 21	-23	Jan. 15	23	34.14	5.55	Sept.	1.42	Mar.	94.0	160	148	100	118	n.
Vernon	Windham	310	1	45.4	99	Aug. 21	-16	Feb. 15	23	37.23	6.84	Sept.	1.40	Oct.	76.3	99	141	102	123	n.w.
Wells	Rutland	750	25	43.1	88	Aug. 19*	-16	Feb. 14	25	34.92	3.85	Sept.	1.46	Jan.	86.5	121	104	137	123	s.w.
Woodstock	Windsor	700	24	44.6	104	July 21*	-16	Feb. 15	24	38.12	6.13	June	1.48	Aug.	105.5	118	117	110	139	.....
Massachusetts.																				
Amherst §	Hampshire	222	27	46.5	96	Aug. 22	-16	Feb. 15	27	45.24	6.85	July	1.01	Oct.	59.6	127	146	95	125	n.w.
Blue Hill	Norfolk	640	32	46.2	91	Aug. 8	-5	Feb. 21	32	45.41	7.55	July	1.66	Sept.	110.2	170	129	89	148	s.w.
Boston	Suffolk	124	46	49.7	93	July 31	0	Feb. 21	46	37.36	5.67	July	0.94	Oct.	82.5	134	137	100	129	s.w.
Chestnut Hill §	do	124	36	48.8	95	Aug. 8	-8	Feb. 15	44	41.91	6.03	June	1.27	Oct.	69.3	141	249	13	104	.....
Clinton §	Worcester	370	20	46.4	88	Aug. 8*	-19	Feb. 14	17	44.70	6.53	June	1.28	Oct.	88.7	126				
Concord §	Middlesex	139	26	46.1	92	Aug. 8	-20	Feb. 14	26	35.49	5.16	Feb.	1.05	Oct.	91.5	133	133	116	117	s.w.
Fall River	Bristol	200	50	48.8	87	July 8*	-1	Feb. 21	50	48.49	11.47	July	1.28	Sept.	78.3	153	97	193	76	s.w.
Fitchburg §	Worcester	550	33	46.8	94	Aug. 21	-11	Feb. 15	33	37.54	6.53	June	0.94	Oct.	91.5	131	172	79	115	w.
Framingham §	Middlesex	160	36	48.0	95	Aug. 8	-19	Feb. 15	37	39.29	5.93	Feb. 14	1.45	Oct.	91.5	131	172	79	115	w.
Lawrence §	Essex	51	32	46.9	93	July 31*	-15	Feb. 15	32	42.47	6.58	June	0.92	Oct.	92.8	114	123	163	80	w.
Lowell §	Middlesex	100	31	48.1	91	July 31*	-16	Feb. 15	62	47.12	7.20	June	1.05	Oct.		111				
Nantucket	Nantucket	47	30	48.2	82	July 31*	6	Feb. 21	30	36.73	5.02	July	1.05	Aug.	42.2	154	116	109	131	s.w.
New Bedford	Bristol	88	104		88	July 6*	1	Feb. 21	102	45.28	4.39	July	1.61	Jan.	57.2	132	195	51	117	s.w.
Plymouth	Plymouth	50	31	45.5	92	Aug. 9	-1	Feb. 21	26	48.56	9.00	July	1.58	Jan.	82.0	126	192	47	127	w.
Plymouthtown	Barnstable	40	29		86	July 23	4	Feb. 21	30	38.11	8.65	July	1.05	Nov.	56.6	111	159	65	115	.....
Rockport §	Essex	25	14	47.2	92	Aug. 8	0	Feb. 21	14	37.74	7.08	June	1.11	Oct.	75.4	141	120	70	106	n.w.
Rutland §	Worcester	1,160	14		90	Aug. 21*	-8	Feb. 20	14						92.7					s.w.
Springfield	Hampden	199	6	48.6	97	Aug. 22	-10	Feb. 15	6	38.65	4.99	Feb.	1.32	Oct.	82.1	111	141	165	121	n.w.
Turners Falls §	Franklin	200	30	46.6	104	July 31	-16	Feb. 15	25	43.79	6.04	June	1.41	Oct.		110	164	54	148	
Westboro	Worcester	298	42	50.9	95	July 12	-12	Feb. 15	42	38.88	5.79	June	1.46	Jan.	84.3	108				w.
Williamstown §	Berkshire	711	35	45.0	90	Aug. 8*	-14	Feb. 15	35	39.97	5.30	July	1.33	Feb.	110.7	107	112	117	147	w.
Worcester	Worcester	518	24	48.4	94	Aug. 8*	-4	Feb. 14	24	37.66	5.44	June	1.19	Oct.	85.8	128	137	118	111	s.w.
Rhode Island.																				
Block Island	Newport	26	36	48.5	81	July 31*	5	Feb. 21	36	34.00	7.37	July	0.57	Aug.	27.1	138	130	67	150	s.w.
Bristol §	Bristol	53	30	48.3	84	Aug. 22	3	Feb. 14*	30	42.97	10.40	July	1.11	Jan.	52.0	135				
Kingston §	Washington	250	27	43.2	88	July 31	-5	Feb. 21	27	52.98	11.75	July	1.05	Sept.	60.3	125	126	119	141	w.
Narragansett Pier	Newport	22	34	47.0	88	July 31	-4	Feb. 21	34	44.38	10.69	July	1.50	Aug.	48.3	151	195	51	201	s.w.
Providence	Providence	182	12	48.6	94	Aug. 8	0	Feb. 14	12	34.44	6.37	July	0.78	Oct.	51.4	149	128	117	121	s.w.
Connecticut.																				
Bridgeport	Fairfield	20	23	50.3	95	Aug. 8	-3	Feb. 22	23	37.52	5.04	Feb.	1.56	Oct.	69.9	133	153	117	96	s.s.
Antoni §	Hartford	900	55	47.2	93	July 31	-15	Feb. 15	55	42.										

Reference letters indicate number of days missing; a one day, b two days, etc.  
\* On other dates also.

\* On other dates also.

† On other months also.

§ Thermometers not supplied by Weather Bureau.

\*\*Temperature data from thermometers not self-recording.

nometers not self-recordin

†† Post-office addresses of these stations are as follows: Cornwall, Middlebury, Vt.; Blue Hill, Hyde Park, Mass.; Cream Hill, W. Cornwall, Conn.; Canton, Collinsville, Conn.



## Monthly and annual precipitation for the year 1916, with departures from the normal.

Stations.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Annual.	
	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.
Maine.																										
Bar Harbor	1.89	-3.34	3.52	-0.85	4.35	-1.43	3.85	+0.68	3.50	+0.01	7.83	+4.16	4.53	+0.57	4.13	-0.08	3.88	-0.07	2.62	-1.28	3.73	-0.11	4.76	+1.64	55.19	+9.14
Cornish	2.09	-1.74	5.83	+1.98	4.10	-0.16	6.23	+2.69	5.46	+1.54	7.83	+4.16	4.53	+0.57	4.13	-0.08	3.88	-0.07	2.62	-1.28	3.73	-0.11	4.76	+1.64	55.19	+9.14
Eastport	1.86	-1.98	2.65	-0.97	1.64	-2.64	2.57	-0.37	1.38	-2.42	3.79	+0.55	4.87	+1.45	1.82	-1.44	2.41	-0.56	2.73	-1.12	2.12	-1.96	3.98	+0.01	31.82	-11.45
Fairfield	0.89	-2.14	1.72	-0.99	1.48	-1.78	1.52	-0.79	2.18	-0.70	2.93	+0.43	1.75	-1.29	4.23	-1.13	3.35	+0.43	2.49	-0.16	4.18	+0.80	4.62	+1.30	51.93	+10.59
Farmington	1.49	-1.91	4.21	+1.06	2.23	-2.12	4.28	+1.69	6.79	+3.04	5.14	+1.72	3.95	+0.43	7.50	+3.81	5.25	+1.69	2.29	-0.92	4.18	+0.80	4.62	+1.30	51.93	+10.59
Gardiner	1.87	-1.84	3.85	+0.41	3.25	-0.81	4.00	+0.61	4.65	+1.03	4.45	+1.32	3.80	+0.06	3.01	-0.41	3.14	-0.12	2.59	-1.38	4.44	-0.36	5.71	+2.04	43.26	+0.40
Greenville	2.35	-0.50	3.34	+0.59	2.35	-1.41	2.45	-0.33	4.59	+1.12	3.99	+0.30	5.60	+1.36	2.95	-0.55	4.23	+0.06	2.87	-0.49	4.17	+1.14	4.87	+2.08	43.76	+3.07
Houlton	2.15	-0.29	3.20	+1.08	0.95	-1.43	1.35	-0.65	1.09	-1.09	2.62	-0.67	4.32	+1.78	1.57	-1.24	4.23	-0.06	3.16	+0.32	2.15	-0.03	4.13	+1.76	28.11	-1.04
Langtown	2.15	-0.29	3.20	+1.08	0.95	-1.43	1.35	-0.65	1.09	-1.09	2.62	-0.67	4.32	+1.78	1.57	-1.24	4.23	-0.06	3.16	+0.32	2.15	-0.03	4.13	+1.76	28.11	-1.04
Lewiston	2.18	-1.84	4.64	+0.80	2.49	-2.10	4.76	+1.49	6.46	+3.04	4.65	+1.23	3.35	-0.20	2.69	-0.57	2.99	-0.48	4.27	-1.21	4.12	+0.22	4.46	+0.52	45.26	+0.90
Madison	1.84	-1.76	3.91	+1.08	2.05	-2.25	4.32	+0.40	6.73	+2.84	5.14	+1.26	3.28	-0.79	6.93	+2.44	5.12	+0.44	2.19	-2.04	5.21	+1.99	3.63	+0.44	50.35	+4.50
Millinocket	1.57	-1.99	2.98	+0.09	1.61	-1.99	2.39	-0.91	4.01	+0.93	2.93	-0.28	5.68	+2.06	2.35	-1.16	3.38	-0.61	3.34	-0.37	5.33	+1.85	5.23	+2.10	40.83	+0.20
North Bridgton	1.67	-1.88	4.36	+0.96	2.51	-1.75	5.04	+1.70	6.45	+2.92	6.95	+3.52	3.58	-0.49	7.83	+4.57	4.84	+1.11	2.15	-1.12	4.25	+0.80	4.50	+1.15	54.13	-11.49
Orono	2.59	-1.43	2.61	-1.01	2.45	-1.60	3.63	+0.72	4.42	+1.04	4.99	+1.65	4.39	+1.14	2.27	-1.06	4.60	+1.04	1.85	-2.17	1.60	-2.16	5.50	+1.98	40.90	1.89
Patten	0.70	-2.37	2.40	-0.20	1.50	-1.12	1.54	-1.15	2.80	+0.16	2.80	+1.65	4.39	+1.14	2.27	-1.06	4.60	+1.04	1.85	-2.17	1.60	-2.16	5.50	+1.98	40.90	1.89
Portland	2.15	-1.66	4.30	-0.65	5.22	+1.47	5.56	+2.45	5.64	+1.97	6.32	+2.96	3.82	-0.57	2.14	-1.43	4.47	-1.73	1.28	-2.37	2.83	-0.85	4.00	+0.85	4.90	+2.62
Presque Isle	2.20	-1.02	2.35	+0.48	1.10	-1.13	1.75	-1.23	3.44	0.0	2.17	-0.80	3.68	-0.93	1.70	-0.38	4.04	+1.86	2.37	-0.85	2.85	+0.40	5.90	+2.62		
Rumford	1.33	-1.75	4.11	+0.94	1.88	-1.74	3.98	+0.80	5.87	+2.36	6.97	+3.77	3.76	-0.05	6.36	+3.04	4.35	+1.04	1.96	-1.14	3.58	+0.32	3.30	+0.23		
Van Buren	2.69	-0.39	2.20	-0.20	1.80	-0.82	1.40	-0.56	4.85	+1.71	2.25	-1.71	7.34	+3.79	1.69	-1.73	3.33	+0.13	3.27	-0.22	3.36	-1.57	5.61	+2.93		
Winslow	1.07	-2.05	2.83	+0.39	0.94	-2.92	2.72	-0.04	3.67	+0.56	3.35	-0.43	3.69	+0.14	4.41	+1.20	3.78	+0.56	3.17	+0.03	5.11	+2.11	4.12	+1.27		
New Hampshire.																										
Alstead Center	1.28	-1.52	3.63	+0.83	2.47	-1.02	3.13	+0.11	3.20	-0.08	6.26	+3.21	4.13	-0.15	5.33	+1.21	6.54	+2.95	1.40	-1.68	3.07	-0.02	2.27	-0.80		
Bethlehem	1.69	-0.70	3.07	+0.71	3.28	+0.18	2.39	-0.19	3.48	+0.16	6.32	+2.59	6.02	+2.28	3.23	-0.65	5.25	+1.46	1.19	-1.81	3.71	+1.05	2.84	+0.51		
Concord	1.22	-1.12	4.18	+0.90	3.01	-0.39	2.96	+0.17	3.95	+0.71	6.26	+2.92	4.55	+0.76	4.45	-0.29	4.37	+1.16	1.34	-1.90	2.63	-0.76	2.21	-1.14		
Durham	0.60	-2.84	2.36	-0.73	2.20	-1.26	5.29	+2.27	7.78	+4.90	6.79	+3.65	4.23	-1.04	3.51	-0.39	6.09	+2.18	1.60	-1.47	3.56	+1.15	3.04	+0.44		
Franklin	1.58	-1.43	4.07	+1.26	3.09	-0.52	3.53	+0.33	4.56	+1.04	9.04	+5.95	4.23	-1.04	3.51	-0.39	6.09	+2.18	1.60	-1.47	3.56	+1.15	3.04	+0.44		
Gloucester	1.99	-1.81	3.70	+0.80	2.01	-1.35	3.75	-0.33	3.93	+0.65	5.33	+2.98	3.67	-0.41	4.35	+0.50	5.22	+1.32	3.19	-0.08	3.63	+0.57	4.13	+1.34		
Grafton	0.94	-2.07	4.27	+1.21	2.85	+0.24	3.17	+0.44	3.25	-0.29	4.63	+1.22	3.74	+0.20	2.37	-1.22	3.95	+0.37	1.09	-1.87	2.62	-0.30	2.38	-0.68		
Hanover	1.29	-1.46	3.35	+0.95	3.01	+0.40	3.06	+0.71	3.57	+0.58	5.42	+2.02	5.54	+0.06	5.85	+0.71	4.96	+1.80	1.04	-2.10	2.44	-0.35	2.41	+0.23		
Keene	1.57	-1.08	3.84	+1.15	2.78	-0.84	3.29	+0.64	3.25	+0.25	5.70	+1.94	4.48	+1.24	3.27	-0.66	6.04	+2.54	1.01	-2.27	2.71	-1.63				
Nashua	1.13	-1.10	3.32	-0.39	3.21	-0.84	4.39	+1.25	5.02	+1.81	7.57	+4.87	3.76	-0.05	6.36	+3.04	4.35	+1.04	1.96	-1.14	3.58	+0.32	3.30	+0.23		
Newton	1.48	-1.85	4.22	+1.02	2.57	-1.24	4.69	+1.27	5.26	+1.94	7.30	+4.30	3.20	-0.42	2.97	-0.13	5.20	+1.66	1.47	-1.76	3.55	+0.45	2.14	-1.01		
Plymouth	1.77	-1.38	3.60	+0.69	1.97	-1.67	2.27	-0.48	3.88	+0.61	6.02	+2.81	6.22	+2.58	3.43	-0.49	5.20	+1.66	1.47	-1.76	3.55	+0.45	2.14	-1.01		
Vermont.																										
Bloomfield	1.82	-0.48	2.11	+0.29	0.80	-1.92	2.56	-0.22	3.26	+0.07	5.62	+1.84	5.29	+1.07	4.16	+0.45	4.73	+0.98	2.01	-0.76	4.58	+2.72	1.77	-0.35		
Burlington	0.87	-0.96	2.32	+0.95	1.31	-0.52	1.85	-0.02	4.69	+1.86	4.32	+1.06	1.67	-2.11	1.06	-2.95	4.06	+0.71	1.43	-1.73	2.08	-0.50	2.79	+1.10		
Cavendish	2.06	-0.31	2.46	+0.26	4.32	+1.57	4.59	+2.42	3.12	-0.01	5.73	+2.27	2.79	-0.87	1.30	-2.05	5.23	+1.01	1.45	-1.75	3.62	+1.53	1.84	-0.56		
Chelsea	1.73	-0.96	2.96	+0.32	1.53	-1.57	2.25	+0.07	3.09	+0.54	5.10	+1.95	2.39	+0.61	1.91	-1.69	4.87	+1.53	1.36	-1.23	2.69	-0.08	2.21	-0.55		
Conwall	1.24	-0.97	2.48	+0.38	2.15	+0.07	1.82	-1.14	2.81	-0.20	3.61	+0.16	2.17	-1.52	1.38	-2.35	3.36	+0.35	1.73	-0.85	1.69	-1.71	1.84	-0.24		
Enosburg Falls	1.82	-0.86	2.09	-0.63	0.97	-2.17	1.62	-0.89	4.14	+0.53	3.53	-0.68	4.48	-0.25	3.38	-0.46	5.95	+2.59	2.52	-0.58	3.24	+0.02	3.23	+0.33		
Hyde Park	1.70	-0.97	2.09	-0.63	0.97	-2.17	1.62	-0.89	4.14	+0.53	3.53	-0.68	4.48	-0.25	3.38	-0.46	5.95	+2.59	2.52	-0.58	3.24	+0.02	3.23	+0.33		
Northfield	1.14	-1.35	2.71	+0.45	1.31	-1.48	1.94	-0.15	3.83	+1.03	4.47	+1.22	4.02	+0.32	1.94	-1.99	3.00	+0.24	2.09	-0.39	3.13	+0.53	1.78	-0.93		
Rutland	1.14	-1.35	2.71	+0.45	1.31	-1.48	1.94	-0.15	3.83	+1.03	4.47	+1.22	4.02	+0.32	1.94	-1.99	3.00	+0.24	2.09	-0.39	3.13	+0.53	1.78	-0.93		
Somerset	4.00	.....	5.18	.....	4.71	.....	4.70	.....	3.94	.....	4.40	.....	4.46	.....	2.20	.....	5.22	.....	2.52	.....	5.56	.....	3.80	.....		
St. Johnsbury	1.93	-0.28	2.59	-0.49	1.52	-1.27	1.68	-0.57	3.48	+0.39	4.36	+1.00	2.02	-2.07	4.62	+1.14	5.55	+1.94	1.65	-0.92	2.94	+0.30	1.80	-0.57		
Vernon	1.46	-2.23	3.29	+0.30	1.74	-1.81	2.44	-0.68	2.86	-0.37																



Monthly and annual mean temperatures for the Year 1916, with departures from the normal.

Stations.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Annual.	
	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.
Maine.																										
Bar Harbor.....	26.5	+4.9	20.3	-2.3	23.8	-7.4	38.8	-2.9	51.8	-0.2	60.8	-4.4	72.0	+3.0	69.0	+2.8	60.1	+1.3	59.0	+2.5	36.1	.....	25.6	+0.4	45.4	+0.8
Cornish.....	23.9	+3.9	21.0	-0.4	27.2	-2.1	44.0	+1.2	55.8	+0.7	60.8	-4.4	72.0	+3.0	69.0	+2.8	60.1	+1.3	59.0	+2.5	36.1	.....	25.6	+0.4	45.4	+0.8
Eastport.....	22.6	+2.5	19.3	-2.1	24.6	-4.3	39.8	+1.5	47.6	+0.7	53.5	-0.9	58.8	-1.0	60.2	+0.5	55.8	+0.6	48.4	+1.8	34.2	-0.9	26.6	+1.3	41.0	0.0
Fairfield.....	20.8	+5.0	21.2	+3.1	24.9	-2.9	43.9	+4.9	54.0	-0.1	61.2	-2.2	69.8	+1.9	66.8	+1.4	59.2	+1.5	49.2	+2.1	.....	.....	.....	.....	.....	.....
Farmingdale.....	18.7	+3.6	17.4	-0.1	21.8	-8.4	43.0	+0.6	53.2	-0.9	60.1	-2.4	70.0	+2.6	66.8	+2.1	57.0	-1.1	46.2	-1.4	30.9	-2.2	21.6	+4.1	42.2	0.0
Gardiner.....	22.0	+4.4	19.0	-0.9	24.9	-5.4	43.2	-0.4	54.3	-1.0	60.4	-4.8	70.3	-0.5	69.0	+0.6	60.0	+0.2	50.1	+0.9	33.6	-3.1	24.8	+1.1	41.3	-0.7
Greenville.....	15.1	.....	11.9	.....	18.8	.....	29.2	.....	49.9	.....	57.5	.....	67.4	.....	65.2	.....	56.2	.....	45.7	.....	29.2	.....	17.8	.....	39.5	.....
Houlton.....	16.2	.....	11.9	.....	20.0	.....	43.3	.....	51.4	.....	60.2	.....	68.4	.....	70.0	.....	59.0	.....	49.8	.....	36.0	.....	26.6	.....	42.7	.....
Langtown.....	.....	.....	.....	.....	.....	.....	.....	.....	50.4	.....	57.0	.....	66.2	.....	63.7	.....	54.6	.....	44.4	.....	29.4	.....	17.1	.....	.....	.....
Lewiston.....	22.4	+4.2	17.2	-2.1	23.6	-5.2	41.9	+0.1	54.2	-0.4	60.8	-3.6	70.6	+1.1	69.0	+1.9	60.2	+1.0	49.0	+1.8	33.2	-2.5	24.0	+6.0	43.9	0.3
Madison.....	17.0	.....	15.8	.....	21.8	.....	42.0	.....	53.1	.....	60.6	.....	69.6	.....	68.2	.....	58.0	.....	44.9	.....	31.0	.....	22.2	.....	41.9	.....
Millinocket.....	17.2	.....	13.2	.....	20.7	.....	42.0	.....	53.0	.....	60.4	.....	69.2	.....	66.2	.....	58.2	.....	46.3	.....	30.2	.....	20.1	.....	41.4	.....
North Bridgton.....	21.9	+3.5	19.5	+0.1	24.4	-4.5	42.8	-0.1	54.3	-0.6	60.6	-4.6	71.9	+2.4	69.6	+2.4	60.0	+0.2	49.6	+0.5	34.2	-2.8	24.6	+0.9	41.5	0.1
Orono.....	23.4	+7.2	20.8	+1.6	25.1	-2.5	44.1	+3.6	54.2	+1.5	61.2	-1.1	69.4	+2.1	68.8	+3.3	59.6	+2.5	49.6	+3.1	34.2	0.0	25.5	+4.2	44.7	-2.2
Patten.....	413.4	.....	412.0	.....	20.3	.....	42.4	.....	52.2	.....	60.8	.....	70.4	.....	67.6	.....	57.4	.....	49.2	.....	22.2	.....	15.1	.....	10.8	.....
Portland.....	26.6	+4.6	20.6	-3.2	26.8	-3.2	41.8	-1.2	52.4	-1.1	58.2	-4.4	67.9	-0.1	66.4	+0.2	58.8	-0.8	50.4	+1.3	36.1	-1.0	27.3	+6.2	44.5	0.9
Presque Isle.....	10.4	.....	9.8	.....	16.6	.....	41.2	.....	50.7	.....	59.6	.....	68.0	.....	71.9	.....	58.5	.....	44.0	.....	28.2	.....	19.6	.....	29.5	.....
Rumford.....	20.4	+3.9	17.8	-0.4	23.8	-3.7	42.1	+0.7	53.4	-0.3	60.8	-2.8	71.0	+2.7	68.2	+2.5	58.0	+0.2	47.4	+0.7	32.2	-1.9	22.8	+1.3	43.2	+0.3
Van Buren.....	9.0	.....	10.8	.....	16.0	.....	40.4	.....	50.7	.....	59.2	.....	67.6	.....	68.2	.....	55.2	.....	43.5	.....	28.0	.....	19.8	.....	29.0	.....
Winslow.....	22.3	+4.5	19.4	+0.7	25.2	-4.7	43.4	+2.2	54.0	+0.4	61.8	-0.9	71.1	+2.6	69.2	+3.5	60.4	+1.1	49.6	+1.9	33.2	-1.2	23.5	+2.5	44.4	+1.0
New Hampshire.																										
Alstead Center.....	23.2	+4.2	17.6	-2.2	23.1	-6.2	42.8	-1.2	55.6	-2.9	58.9	-8.4	71.4	-0.3	68.7	0.0	59.2	-0.6	48.8	+0.5	34.7	-0.3	23.0	-0.3	43.9	-1.4
Bethlehem.....	20.2	+4.8	14.4	-3.0	19.8	-6.7	40.4	-0.1	52.0	-2.0	58.8	-4.7	69.2	+2.1	65.8	+1.8	56.0	-0.5	47.1	0.9	30.9	-1.7	18.4	-2.2	41.1	-0.9
Concord.....	25.8	+4.6	20.0	-3.6	26.2	-5.3	43.0	-0.8	55.4	-0.3	60.2	-4.2	71.6	+2.5	68.7	+2.1	59.2	+0.1	49.6	+0.5	36.0	-0.8	25.4	-1.0	45.1	-0.5
Durham.....	26.1	+5.3	20.7	-4.0	26.2	-5.3	42.2	-1.8	54.4	-0.4	59.2	-5.1	72.4	+2.5	68.6	+3.6	57.4	-3.1	49.6	+0.5	36.4	-2.6	16.6	-1.7	44.8	-1.6
Franklin.....	24.1	+3.5	19.8	+0.8	25.6	-5.8	43.1	+0.2	55.9	-0.4	60.2	-3.1	72.4	+2.5	69.0	+3.4	59.4	-0.5	49.8	+2.0	35.4	-0.4	24.9	-1.7	45.0	0.3
Glen Hill.....	18.8	.....	14.0	.....	19.2	.....	39.4	.....	51.0	.....	57.6	.....	67.8	.....	65.1	.....	56.0	.....	36.2	.....	31.2	.....	15.4	.....	40.1	.....
Graton.....	21.8	+5.0	17.3	-0.9	20.6	-6.9	40.7	-0.6	52.8	-0.5	58.0	-4.2	69.3	+1.7	66.3	+1.6	56.7	-0.4	46.4	-0.3	32.4	-1.8	21.1	0.2	42.0	0.6
Hanover.....	21.5	+4.6	18.5	-0.6	23.2	-4.2	42.6	+1.0	54.8	-0.6	60.2	-4.8	72.0	+2.8	69.2	+3.1	58.3	+0.5	48.4	+2.0	33.1	-0.5	21.5	+0.1	43.9	+0.3
Keene.....	24.2	+3.3	19.2	-3.4	24.0	-6.6	43.0	-1.1	55.4	-0.9	60.1	-4.8	71.6	+3.3	68.6	+2.4	58.7	0.4	48.8	+1.2	35.5	-1.2	24.4	1.2	42.8	+2.4
Nashua.....	27.5	+5.0	22.2	-1.8	28.0	-4.2	41.6	-0.9	57.5	+0.3	61.8	-4.5	73.0	+2.3	71.0	+2.4	.....	.....	52.8	+3.9	.....	.....	.....	.....	.....	.....
Newton.....	26.7	+3.7	20.3	-4.1	25.2	-6.6	41.6	-2.8	54.2	-1.0	58.9	-5.6	69.6	+0.4	67.4	+0.4	.....	.....	49.4	+1.0	36.0	-1.8	26.5	-1.2	.....	.....
Plymouth.....	20.8	+4.1	18.6	-0.7	23.0	-3.9	42.2	+1.0	54.1	+0.8	59.9	-4.3	71.8	+4.2	67.7	-1.8	57.4	0.0	46.5	-1.8	32.6	-0.1	23.0	0.8	43.7	+1.2
Vermont.																										
Bloomfield.....	18.4	.....	15.4	.....	19.0	.....	40.4	.....	51.6	.....	59.0	.....	68.5	.....	65.4	.....	56.0	.....	45.8	.....	29.8	.....	18.1	.....	40.6	.....
Burlington.....	23.2	+6.9	14.6	-3.3	20.7	-6.7	43.0	+2.3	53.9	0.0	59.9	-2.9	74.1	+3.2	69.1	+3.0	60.2	+1.3	48.2	+1.3	34.3	+0.6	21.4	-1.1	43.6	+0.6
Cavendish.....	22.2	.....	16.8	.....	21.6	.....	42.2	.....	54.4	.....	59.5	.....	71.6	.....	67.6	.....	55.8	.....	46.9	.....	32.4	.....	22.6	.....	42.8	.....
Chelsea.....	18.2	+3.2	17.2	-1.6	20.6	-4.4	40.6	+0.7	52.8	+0.2	60.2	-1.1	71.0	+3.8	66.4	+2.5	55.4	-0.8	46.2	+1.0	31.1	-2.1	20.0	-1.2	41.6	0.0
Cornwall.....	23.0	+3.7	17.3	-1.9	22.3	-6.8	44.4	-0.9	55.6	-1.4	62.2	-4.9	73.1	+2.2	71.4	+3.5	61.7	+0.8	51.2	+1.5	35.8	-0.3	22.8	-2.6	45.1	-0.6
Enosburg Falls.....	20.4	+4.3	14.0	-3.0	18.3	-9.1	42.3	-0.4	51.2	-4.4	58.1	-7.1	71.0	+3.4	68.2	+3.6	59.0	+1.0	47.8	+0.5	33.5	-1.0	18.0	-4.3	41.8	-1.4
Hyde Park.....	20.8	.....	15.2	.....	20.5	.....	43.1	.....	52.9	.....	60.6	.....	71.1	.....	67.6	.....	58.4	.....	47.4	.....	31.8	.....	19.0	.....	42.3	.....
Northfield.....	22.2	+7.1	14.7	-2.5	19.0	-7.2	40.8	+0.6	51.4	-2.1	57.5	-5.2	68.8	+2.2	65.2	+2.3	55.5	+0.9	45.8	+2.2	31.8	-0.2	19.1	-1.4	41.0	-0.3
Rutland.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Somerset.....	23.4	.....	14.0	.....	19.5	.....	36.5	.....	49.6	.....	54.6	.....	66.1	.....	63.1	.....	53.2	.....	45.0	.....	32.7	.....	20.2	.....	39.9	.....
St. Johnsbury.....	19.6	+4.7	18.3	+0.8	22.6	-3.9	44.0	+2.2	54.9	-0.2	62.4	-1.6	72.6	+4.5	69.8	+5.4	58.9	+1.5	48.4	+2.0	31.8	-1.5	20.1	-0.6	43.6	+1.1
Vernon.....	25.6	+5.0	17.3	-4.9	24.6	-5.9	43.4	-2.2	56.5	-1.3	60.8	-7.0	73.4	+2.1	70.9	+2.1	59.9	-0.8	50.3	+2.2	36.4	-0.7	25.1	-0.6	45.4	-0.9
Wells.....	23.0	+4.8	16.1	-2.8	20.2	-7.3	41.6	-0.2	55.0	-0.4	60.6	-5.1	70.3	+1.3	67.8	+1.4	59.6	+0.8	47.7	-0.3	33.5	-1.4	22.2	-1.6	43.1	-0.9
Woodstock.....	24.2	+8.8	20.8	+3.4	23.1	-4.6	43.0	+1.2	55.0	-0.1	62.5	-2.5	74.6	+6.3	69.8	+4.5	59.2	+2.5	46.8	+1.0	33.0	-0.8	23.2	-1.7	44.6	+1.8
Massachusetts.																										
Amherst.....	27.8	+4.2	20.4	-4.5	26.8	-5.9	44.8	-0.6	56.2	-0.8	61															



## Monthly maximum temperatures for the year 1916, with dates.

	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
Stations.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.
Maine.																								
Bar Harbor.....	56	26	44	1†	60	28	62	21	76	13	85	27	96	12	95	23	90	14	81	5	71	9	57	7
Cornish.....	64	28	59	1	66	39	71	16	84	29	85	27	96	12	95	23	90	14	81	5	71	9	57	7
Eastport.....	48	22	49	1	50	30	58	16	74	11	72	29	86	12	80	21	79	14	73	6	57	9	52	1
Fairfield.....	50	26	46†	1	65	30	70	16	78	29	79	27	91	12	88	21	81	14†	76	5	66	9	45	6
Farmington.....	52	28	49	1	66	30	71	16	83	29	85	27	94	20	94	21	85	14	79	5	66	9	45	6
Gardiner.....	55	28	52	1	67	30	67	16†	79	29	80	26	94	12	92	23	89	14	82	4	57	10	48	5
Greenville.....	47	22	44	1†	63	28	65	17	79	29	81	27	92	20	91	20	81	13	81	5	69	9	40	1
Houlton.....	42	25	42	26	74	27	68	17	77	22	83	27	95	20	94	20	84	13	79	7	63	9	48	1
Langtown.....									81	29	82	27	92	20	89	19†	83	13†	80	5	62	9	42	6
Lewiston.....	54	28	48	1	60	30	64	16†	79	29	80	27	92	12	92	21	86	14	80	5	67	9	46	6
Madison.....	52	23†	45	2	65	31	68	17	81	30	83	28	94	21	93	22	85	9†	81	6	59	10	50	1
Millinocket.....	46	6†	44	1†	63	28	70	17	80	29	83	27	93	20	93	21	83	13	82	5	62	9	43	1
North Bridgton.....	59	26	52	1	65	26	71	16	83	29	84	27	97	12	97	21	87	14	83	5	66	9	49	8
Orono.....	49	23†	50	1	69	31	65	17†	80	22	82	2	94	12†	93	21	86	14	81	5	64	9†	53	1†
Patten.....	55	28	49	1	70	30	73	17	80	29	85	27	98	20	98	21	88	13	85	5	70	9	50	1
Portland.....	61	26	53	1	57	27	59	13	76	11	77	29	94	12	89	8	83	8†	79	6	61	9	44	5
Presque Isle.....	42	11	46	1	57	31	70	27	75	22	82	27	96	20	93	20	84	8	80	5	69	9	41	6
Rumford.....	53	28	44	1	61	30	67	30	80	29	83	27	92	12	92	21	84	8	77	5	66	9	42	1
Van Buren.....	38	22	42	1†	63	27	67	24†	75	22	80	27	95	20	92	20†	82	8	79	5	65	9	42	1
Winslow.....	51	26	48	1	68	30	72	17	81	29	84	27	94	12†	97	21	88	14	82	5	67	9	50	1
New Hampshire.																								
Alstead Center.....	53	28	49	1	59	26	69	30	80	29	79	27	88	12	91	21	80	14	73	5	60	9	48	5
Bethlehem.....	51	22†	53	1	61	30	66	30	79	29	82	27	90	12	88	19†	81	14	75	5	66	9	49	5
Concord.....	62	26	55	1	65	31	70	30	84	29	83	27	94	12	94	21	87	14	83	5	69	9	48	5
Durham.....	60	26	50	1†	61	26†	67	1	80	25†	85	27	94	12†	95	21†	84	1	83	5	67	24	55	5
Franklin.....	56	28	49	1	66	30†	74	30	86	29	85	27	94	12†	94	21	87	14	81	5	69	9	47	8
Glencliff.....	54	27	48	1†	60	31	67	30	79	29	80	27	89	20	88	21†	82	15	78	6	64	10	46	4
Grafton.....	56	26†	48	1	64	30	71	30	83	29	83	27	92	12	92	21	85	14	80	5	67	9	45	7
Hanover.....	54	26†	47	1	65	30	73	30	84	29	83	27	93	12†	96	21	89	14	80	5	63	9	48	5
Keene.....	55	26	47	1	63	22†	73	30	83	29	84	27	92	12	94	21	86	14	79	5	65	9	50	5
Nashua.....	65	26	54	1	62	31	70	16	84	29	84	27	97	12	97	21	87	8	87	5	66	9	56	5
Newton.....	61	28	52	1	57	26	69	16	81	25	82	27†	92	12†	93	8	81	5	81	5	66	9	56	5
Plymouth.....	52	28	45	1	59	30†	71	30	85	29	84	26†	94	19†	90	21	84	14	77	5	64	9	42	1
Vermont.																								
Bloomfield.....	50	28	50	1	61	27	69	30	82	29	82	27	90	20	91	21	84	14	78	5	63	9	47	6
Burlington.....	56	28	47	1	57	31	67	30	80	29	79	27	91	12	94	20	84	14	76	5	63	9	50	5
Cavendish.....	55	23†	42	1	63	30	73	30	84	29	83	27	95	12	94	21	85	14	76	5†	68	10	49	5
Chelsea.....	51	28	44	1†	62	28	68	29	81	29	84	27	91	12†	93	21	85	14	77	5	66	8	47	5
Cornwall.....	52	26	42	25	59	28	74	30	80	29	83	27	94	12	104	21	85	14	78	4†	64	9	50	5
Enosburg Falls.....	54	22	53	1	53	30†	67	16	75	24†	74	7†	93	24	93	20	84	12	81	5	66	8	53	5
Hyde Park.....	59	28	54	1	65	27	72	30	83	29	83	27	94	19†	96	19	88	12	83	5	67	9	49	6
Northfield.....	60	28	52	1	60	28	69	30	79	29	83	27	90	12	92	22	85	14	82	5	67	9	52	5
Rutland.....																	86	15	84	5	71	9	52	5
Somerset.....	56	27	37	25†	58	26†	67	30	71	25†	77	27	87	19	90	21	80	14	74	5	64	9	46	5
St. Johnsbury.....	53	28	47	1	66	28	73	30	84	29	86	27	94	12†	96	21	87	14	81	4	65	9	47	6
Vernon.....	54	28	44	1	63	31	72	30	85	29	82	26	94	12	99	21	86	13	78	8	64	9	52	5
Wells.....	50	26†	48	1	55	28	65	30	80	29	82	14	87	12	88	19†	80	7†	72	5†	58	9	50	5
Woodstock.....	61	28	57	1	60	29	72	30	84	29	89	27	104	21†	100	15	90	14	79	8†	66	9	50	5
Massachusetts.																								
Amherst.....	58	28	48	1	66	31	74	30	82	29	84	28	94	31	96	22	90	14	84	8	64	9	54	5
Blue Hill.....	60	26	53	1	50	31	67	16	80	25	78	28	88	31	91	8	85	14	81	8	64	9	55	5
Boston.....	66	22	57	1	55	26	68	1	85	25	84	27	93	31	95	8	90	14	84	8	68	9	59	5
Chestnut Hill.....	64	26	55	1	58	31	71	17	81	11†	84	26	94	31	95	8	91	14	83	5	68	9	58	5
Clinton.....	62	28	44	1†	62	31	69	30	81	28	80	28	87	31	92	8	87	14	79	9	65	9	55	5
Concord.....	64	26	54	1	62	31	70	16	82	29	81	27	91	31	92	8	87	14	79	9	65	9	55	5
Fall River.....	61	28	52	1	58	31	64	29	80	25	80	28	87	31	92	8	87	14	79	9	65	9	55	5
Fitchburg.....	61	26	56	1	65	31	71	16	86	29	86	28	90	12†	95	8	87	8†	82	8	65	9	58	5
Framingham.....	63	26	55	1	59	31	70	16	82	29	84	27	91	12†	93	31	93	8	90	14	82	8	56	5
Lawrence.....	62	26	53	1	58	31	70	16	82	25†	84	28†	91	31	91	8†	85	14†	79	8	66	10	55	5
Lowell.....	59	26	51	1	61	31	67	16†	81	29	75	26†	82	31	80	6	82	14	70	9	62	9	55	5
Nantucket.....	53	28	53	25	46	31	57	16	70	29	75	26	82	31	80	6	82	8	74	9	61	9	58	5
New Bedford.....	64	28	53	1	59	31	62	29	80	11†	79	28	88	31	92	8	81	8	78	9	61</			

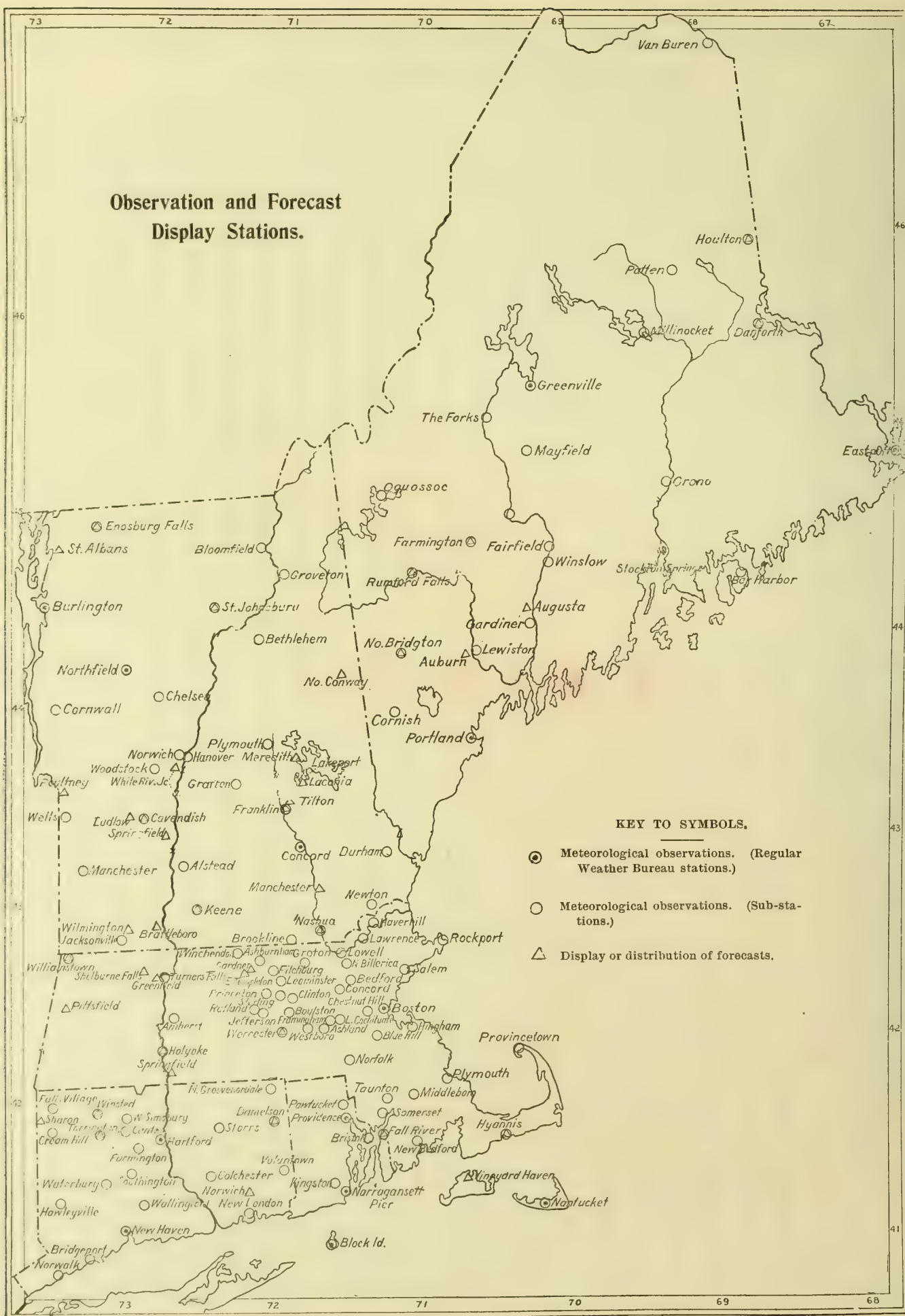


Stations.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.
Maine.																								
Bar Harbor.	-12	18	-19	15	-2	1	22	4†	28	4														
Cornish.	-18	15	-15	15	-15	4	18	24	10	32	1†	40	1	48	6	45	14†	34	20	22	18	4	15	11
Eastport.	-6	18	-12	21	-	4	18	25	10	34	1	40	16	47	8	47	14	41	20	30	18	11	27	1
Fairfield.	-22	18	-5	14	-9	4	18	23	4	30	14	42	4	49	6	47	2	37	20	27	18†			
Farmington.	-18	9	-18	15	-8	21	20	4	28	3	43	3†	49	89	29	37	4†	22	19†		-7	17	-8	15
Gardiner.	-19	18	-16	15	-9	12	26	8	33	1	38	3†	43	4	49	2	36	20	26	18†	1	22	2	14
Greenville.	-16	18	-22	21	-11	22	17	4	26	2	43	4	43	21	40	2	35	11	22	19	0	17	-8	30
Houlton.	-14	8	-19	12†	-18	22	24	11	29	1	41	1	38	9	39	2	32	11	24	28†	-3	17	12	29
Langtown.																								
Lewiston.	-10	18	-13	14†	-10	12	27	3†	37	1	46	10†	53	6	50	14†	40	20	28	29	9	17	3	30
Madison.	-22	9	-17	15	-10	21	21	4	31	5	42	3	50	1†	43	29	35	4†	25	19	-2	17	6	31
Millinocket.	-17	19	-18	24	-17	22	16	4	27	15	26	7	44	6†	36	2	31	4†	21	19	-7	17	6	30
North Bridgton.	-16	18	-14	15	-11	12	24	4	32	1	41	3	50	1†	45	21	36	20	26	29	7	15†	1	30
Orono.	-14	18	-13	20	0	12†	24	4	30	1	37	4	47	6	42	2	33	11	24	19	2	17	3	15
Patten.	-25	18	-20	15†	-20	22	13	4	25	1†	35	5	39	15	36	2	30	2†	18	11	17	20	26	16
Portland.	-1	15	-5	21	1	18	27	10	38	19	44	9†	54	5	49	29	42	20†	32	18	16	17	6	31
Presque Isle.	-25	7†	-28	22	-20	22	18	8†	25	1	36	2	38	10	36	2	28	11	20	28	-5	17	13	27
Rumford.	-6	9†	-12	21	-2	18	24	4	34	5†	44	2†	51	28	47	2†	47	20	27	19	4	17	1	30
Van Buren.	-29	8	-33	12	-23	13†	12	4	26	1	40	1	39	10	36	2	29	11†	22	19	-4	17	11	29
Winslow.	-14	8†	-16	15	-5	21	16	16	31	1	40	3	46	6	45	22	36	11†	24	29	-4	17	6	14
New Hampshire.																								
Alstead Center.	-8	9†	-11	14†	-6	18	25	10	33	10	41	9†	52	1	45	29	35	26	26	18	12	15†	-4	31
Bethlehem.	-13	9†	-19	14	-14	18	19	3	27	10	38	1	47	6	40	29	34	20	19	18	2	26	-15	30
Concord.	-9	18	-15	16	-2	12	25	8	35	1	42													

Reference letters indicate number of days missing; a one day, b two day, etc.

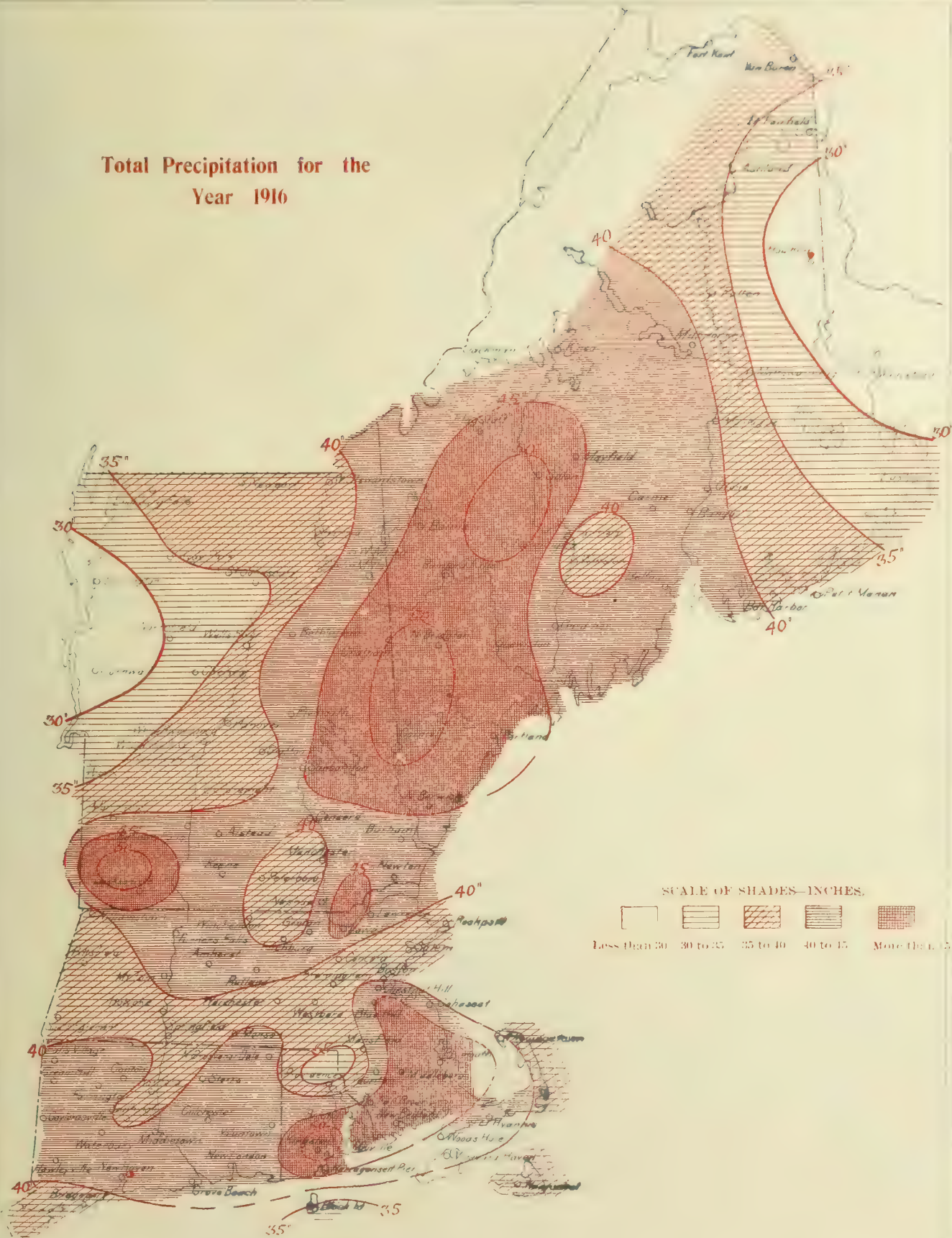


# Observation and Forecast Display Stations.





# Total Precipitation for the Year 1916





## COOPERATIVE OBSERVERS.

Station.	Observer.	Station.	Observer.	Station.	Observer.	Station.	Observer.
<b>MAINE.</b>		Durham.....	N. H. Agr. College.	Brockton.....	City Engineer.	<b>RHODE ISLAND.</b>	
Ashland.....	F. R. Coburn.	Franklin.....	Dr. C. P. Webster.	Chestnut Hill.....	Met. Water Board.	Block Island.....	U. S. Weather Bureau
Bar Harbor.....	Wm. Miller.	Glencliff.....	State Sanatorium.	Clinton.....	Met. Water Board.	Bristol.....	N. G. Herreshoff.
Cambridge.....	J. D. Ring.	Grafton.....	P. R. Kimball.	Concord.....	F. A. Tower.	Greene.....	A. K. Greene.
Cornish.....	T. H. West.	Hanover.....	Dartmouth College.	Fall River.....	C. V. S. Remington.	Hope Valley.....	H. A. Spencer.
Danforth.....	Ed. Huff.	Keene.....	Samuel Wadsworth.	Fitchburg.....	Dr. A. P. Mason.	Kingston.....	Nathaniel Helme.
Eastport.....	U. S. Weather Bureau	Nashua.....	C. B. Stevens.	Framingham.....	Met. Water Board.	Narragansett Pier.	U. S. Weather Bureau
Eustis.....	F. L. Porter.	Newton.....	W. C. Gale.	Haverhill.....	City Engineer.	Pawtucket.....	A. H. Keene.
Fairfield.....	E. F. Parker.	Plymouth.....	Mrs. Hattie G. Trow.	Hingham.....	H. W. Cushing.	Providence (a)...	City Engineer.
Farmington.....	W. G. Mallett.	<b>VERMONT.</b>		Hyannis.....	Cambridge W. Works.	Providence (b)...	U. S. Weather Bureau
Gardiner.....	Samuel D. Soule.	Bloomfield.....	L. F. Power Co.	Jefferson.....	Barnstable Water Co.	Wallum Lake.....	State Sanatorium.
Greenville.....	U. S. Weather Bureau	Burlington.....	U. S. Weather Bureau	Lake Cochituate.	Met. Water Board.	<b>CONNECTICUT.</b>	
Houlton.....	B. & A. R.R.	Cavendish.....	Colonial Power Co.	Lawrence.....	Essex Co.	Bridgeport.....	Wm. Jennings.
Howe Brook.....	B. & A. R.R.	Chelsea.....	W. F. Dewey.	Leominster.....	W. H. Hosmer.	Canton.....	G. J. Case.
Langtown.....	Langtown Company.	Cornwall.....	C. H. Lane.	Lowell (a, b)....	Prop. Locks & Canals.	Colchester.....	S. P. Willard.
Lewiston.....	Union Water Po'r Co.	Enosburg Falls..	J. W. Pomeroy.	Nantucket.....	U. S. Weather Bureau	Cromwell.....	C. L. Gold.
Madison.....	Wm. Jardine.	Hyde Park.....	A. V. Wiswell.	New Bedford.....	City Engineer.	Danielson.....	F. E. Bitgood.
Millinocket.....	Great N'ern Paper Co.	Northfield.....	U. S. Weather Bureau	Plymouth.....	Miss L. B. Knapp.	East Hartland..	N. H. Gaines.
North Bridgton..	C. L. Chadbourn.	Norwich.....	C. W. Brown.	Princeton.....	Met. Water Board.	Falls Village.....	M. H. Dean.
Orono.....	Maine State College.	Rutland.....	Geo. H. Ross.	Provincetown....	Gideon Bowley.	Hartford.....	U. S. Weather Bureau
Patten.....	B. & A. R.R.	Somerset.....	Power Construc'n Co.	Rockport.....	U. S. C. G. Station.	Hawleyville.....	Mrs. C. B. Hawley.
Portland.....	U. S. Weather Bureau	St. Johnsbury....	Fairbanks Museum.	Roberts Dam.....	Cambridge W. Works.	Lake Konomoc...	N. London W. Works.
Presque Isle.....	E. M. Libby.	Vernon.....	Conn. River Power Co.	Rutland.....	State Sanatorium.	New Haven.....	U. S. Weather Bureau
Rumford Falls..	C. A. Mixer.	Wells.....	E. R. Pember.	Spot Pond.....	Water Works.	New London.....	T. C. Dillon.
Van Buren.....	Rev. J. M. Thomas.	Woodstock.....	John S. Eaton.	Sterling.....	Met. Water Board.	N. Grosvenor Dale.	Grosvenor-Dale Co.
Winslow.....	H. & W. Co.	<b>MASSACHUSETTS.</b>		Somerset.....	Elisha Stale.	Norwalk.....	G. C. Comstock.
<b>NEW HAMPSHIRE.</b>		Amherst.....	Mass. Exp. Station.	Springfield.....	U. S. Armory.	Southington....	L. Andrews.
Alstead Center..	Frank Dewing.	Ashland.....	Met. Water Board.	Taunton.....	Taunton W'r Works	Storrs.....	Agr. Exper. Station.
Bethlehem.....	Benjamin Tucker.	Baker's Bridge..	J. E. Baker.	Turners Falls....	Turners Falls Co.	Torrington.....	Supt. of Schools.
Brookline.....	G. W. Bridges.	Bedford.....	J. E. Jenks.	Woburn.....	Miss E. W. Newcomb.	Voluntown.....	J. L. Herbert.
Concord.....	U. S. Weather Bureau	Boston.....	U. S. Weather Bureau	Williamstown....	Williams College.	Waterbury.....	N. J. Welton.
		Blue Hill.....	Blue Hill Observatory	Winchendon.....	John Gregory.		
		Boylston.....	Met. Water Board.	Worcester.....	G. W. Swan.		

## DISPLAYMEN.

Station.	Displayman.	Station.	Displayman.	Station.	Displayman.	Station.	Displayman.
<b>MAINE.</b>		*Portsmouth.....	E. M. Fisher.	*Gloucester.....	R. E. Geary.	<b>RHODE ISLAND.</b>	
Augusta.....	Custodian U. S. P. O.	*Rye Beach.....	U. S. C. G. S.	*Highland Light..	I. M. Small.	*Block Island.....	U. S. Weather Bureau
*Bangor.....	C. M. Stewart.	Sunapee.....	Emerson Paper Co.	Holyoke.....	O. C. Ferry.	*Narragansett Pier	U. S. Weather Bureau
*Booth Bay Harbor	C. H. McCobb.	*Seaveys Island..	U. S. N., Portsmouth.	*Hull.....	W. S. Richardson.	*Newport.....	Naval Torpedo Sta'n
*Eastport.....	U. S. Weather Bureau	*Walis Sands.....	U. S. C. G. S.	*Hyannis.....	S. C. Fuller.	*Point Judith....	U. S. L. S. S.
Farmington.....	W. G. Mallett.	<b>VERMONT.</b>		*Marblehead.....	Girdler Stacey.	*Providence.....	U. S. Weather Bureau
*Isle of Shoals....	U. S. C. G. S.	Burlington.....	U. S. Weather Bureau	*Monomoy.....	U. S. C. G. S.	*Providence.....	R. I. Yacht Club.
Lewiston.....	D. F. Thompson.	Northfield.....	U. S. Weather Bureau	*Nantucket.....	U. S. Weather Bureau	Providence.....	Hose Co. 20.
*Machiasport.....	W. C. Hanson.	<b>MASSACHUSETTS.</b>		*Nantucket S. S.	U. S. N., Nantucket.	*Saunderstown...	J. L. Eaton.
*Marshall Point L't	A. P. Skinner.	Amherst.....	Mass. Exp. Station.	Light-ship.....	Wm. A. Coe.	*Southeast Light..	M. A. Clark.
*Portland.....	U. S. Weather Bureau	*Boston.....	U. S. Weather Bureau	*New Bedford....	L. B. Bessee.	<b>CONNECTICUT.</b>	
*Vinalhaven.....	Libby Fish Co.	*Chatham.....	W. L. Nickerson.	*Newburyport....	Alfred Nickerson.	*Bridgeport.....	T. J. Keegan.
*West Quoddy Is'd.	C. M. Guptill.	*Cuttyhunk.....	U. S. C. G. S.	*North Plymouth..	Plymouth Cordage Co.	*Greenwich.....	Yacht Club.
*White Head Is'd.	Ida E. Shea.	*East Chop.....	East Chop Light Sta.	*Pocasset.....	Wings Neck Light Sta	*New Haven.....	U. S. Weather Bureau
<b>NEW HAMPSHIRE.</b>		*Fall River.....	Wm. Durfee.	*Provincetown....	M. A. Bowley.	*New Haven Light	Albert Widman.
Claremont.....	C. H. Weed & Co.			*Race Point.....	U. S. C. G. S.	*New London.....	T. C. Dillon.
Durham.....	N. H. State College.			*Rockport.....	U. S. C. G. S.	Torrington.....	Supt. of Schools.
*Portsmouth Har'r	U. S. C. G. S.			*Sandwich.....	C. C. Canal Co.	*Saybrook Point..	A. H. Barber.
				*Tarpaulin Cove..	Jesse Donald.	*Stonington.....	J. N. Fuller.
				*Welfare.....	J. E. Crowell.	*Fisher's Is'd, N.Y.	Fort H. G. Wright.

NOTE.—Wireless stations at Boston Navy-yard, Highland Light, Newport Torpedo Station, also repeat to vessels in addition to the wireless stations displaying warnings.  
 \* Stations displaying storm warnings. † Government wireless stations.

## FORECAST DISTRIBUTING CENTERS.

Station.	Distributor.	Station.	Distributor.	Station.	Distributor.	Station.	Distributor.
<b>MAINE.</b>		North Conway-50.	Postmaster.	White River J'ct-96	Postmaster.	<b>RHODE ISLAND.</b>	
Auburn-15.....	Postmaster.	Peterboro.....	Do.	Wilmington-92....	Do.	Block Island-46...	U. S. Weather Bureau
Augusta-111.....	Do.	Tilton-5.....	Do.	<b>MASSACHUSETTS.</b>		Narragansett Pier	Do.
Eastport-294 47..	U. S. Weather Bureau	Tilton-200.....	Citizens Tele. Co.	Boston-3300-#1700	U. S. Weather Bureau	*-16.....	Do.
Farmington-800...	Maine Tel. & Tel. Co.	<b>VERMONT.</b>		1000.....		Providence-777....	Do.
Houlton-27.....	Postmaster.	Brattleboro-331..	Postmaster.	Fall River-182....	Postmaster.	<b>CONNECTICUT.</b>	
Houlton-2800....	Aroostook Co. Tele. Co.	Burlington-2104 150	U. S. Weather Bureau	Gardner-61.....	Do.	Hartford-1000-#150	U. S. Weather Bureau
Portland-800 1104 120	U. S. Weather Bureau	Enosburg Falls-200	Northern Tele. Co.	Greenfield-54.....	Do.	New Haven-1050	U. S. Weather Bureau
<b>NEW HAMPSHIRE.</b>		Ludlow-130.....	Ludlow Tele. Co.	Holyoke-67.....	O. C. Ferry.	*-10.....	
Concord-300-#200..	U. S. Weather Bureau	Northfield-130 1265	U. S. Weather Bureau	Nantucket-27.....	U. S. Weather Bureau	Norwich-96.....	Postmaster.
Henniker-177.....	Henniker Tele. Co.	Readsboro-100....	Postmaster.	Pittsfield-224....	Postmaster.	Sharon-100.....	Sharon Tele. Co.
Laconia-179.....	Postmaster.	Springfield-175....	Springfield Local	Shepley Falls-1659	Martha's Vineyard	Torrington-8.....	Postmaster.
Manchester-212....	Do.		Tele. Co.	Vineyard Haven-6	Tele. Co.	Wash'n Depot-50..	Do.
Meredith-375.....	Winnepesaukee Tele- phone Co.	St. Albans-50....	Postmaster.	Worcester-188....	Postmaster.	Winsted-21.....	Do.
		St. Johnsbury-119.	Do.				

Figures indicate number of forecast cards mailed daily from distributing center.

† Weather Bulletins.

‡ Rural Free Delivery slips.

\* Number of Weather Maps mailed daily.



U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU

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MAR 1 1917

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# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

JANUARY, 1917

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BY

JOHN W. SMITH

METEOROLOGIST

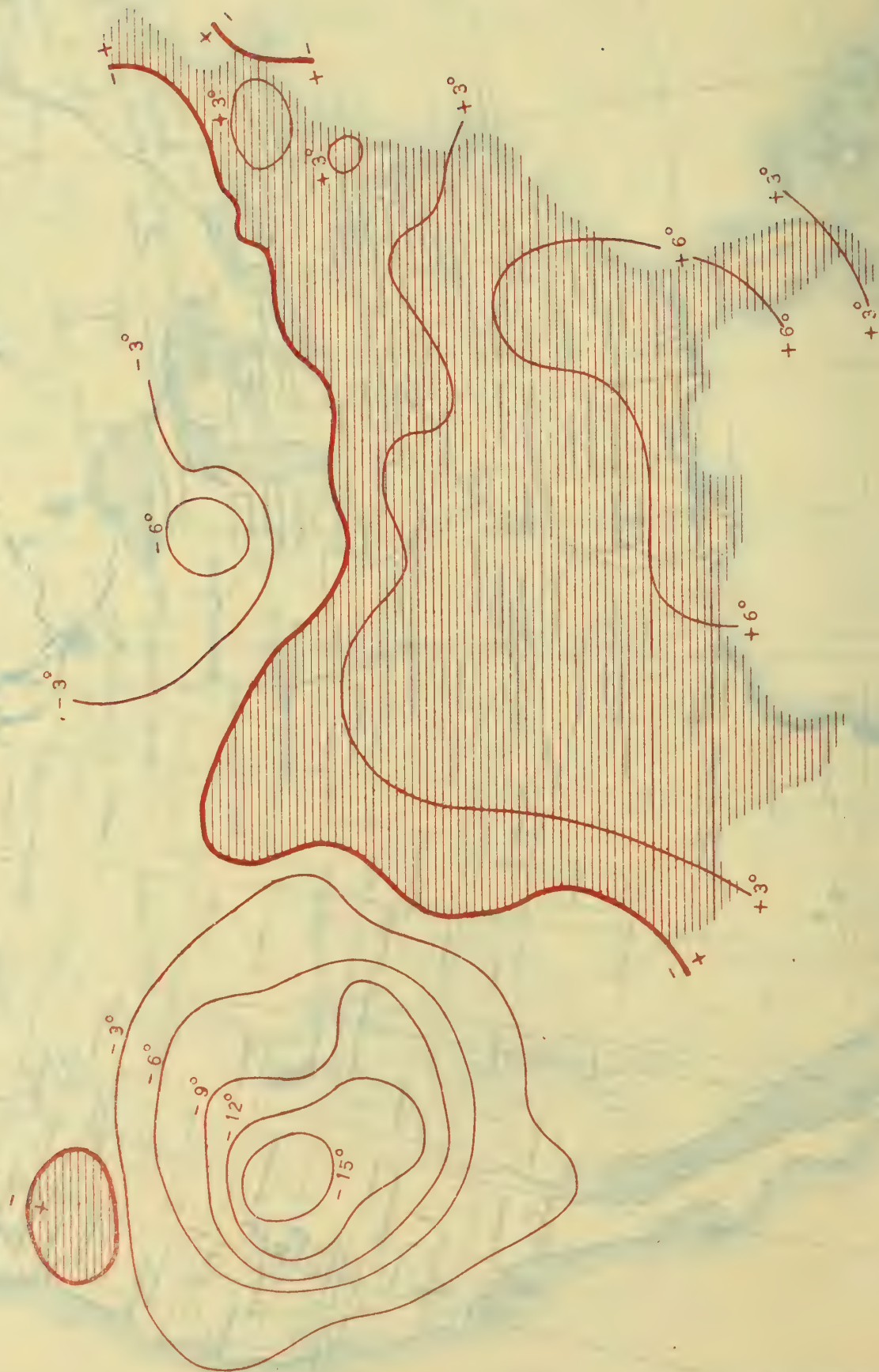
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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
FEBRUARY 23, 1917



Departure of the Mean Temperature from the Normal, January, 1917.



Shaded portions show excess (+).  
 Unshaded portions show deficiency (-).  
 Lines show amount of excess or de-



## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

VOL. XXIX. BOSTON, MASS., JANUARY, 1917.

No. 1.

## GENERAL SUMMARY.

The month was near the normal in temperature and somewhat below the normal in precipitation. The first decade was warmer than usual. This was followed by a reaction to colder weather, which prevailed quite steadily until the 29th, with the exception of the 14th, on which date the highest temperature of the month generally occurred. During this period minimum temperatures near or below zero occurred nearly every day in the northern States of the section. Precipitation, in light to moderate amounts, was frequent, and was well distributed over the section. There were no heavy snowstorms, the greatest amounts at anyone time varying from 4 to 6 inches. In the interior and northern portions of Maine the amount on the ground accumulated to between 1 and 3 feet. On the Maine coast and in New Hampshire and Vermont the greatest depth ranged from 6 to 15 inches. In the southern portion of the section there was from 1 to 6 inches on the ground during the first week and last decade, and little or none during the intervening time. The conditions were favorable for the making and harvesting of an excellent ice crop.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 14 stations reporting, was 29.99 inches, which was .06 inch below the normal for the month, and .18 inch below the mean for January, 1916. The highest monthly mean was 30.02 inches, at New Haven, Conn.; the lowest, 29.93 inches, at Eastport, Me. The highest recorded was 30.77 inches, at Hartford and New Haven, Conn. on the 15th; the lowest, 28.23 inches, at Eastport, Me. on the 19th, and at Burlington and Northfield, Vt. on the 22d. The range for the section was 1.54 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 83 stations, was 21.9°, which was 3.9° below the mean for January, 1916. During the past 29 years the average January temperature has been lower in 10 years, the same in 1 year, and higher in 18 years than that of the present month. The highest average January temperature during this period was 32.1°, in 1913; the lowest, 15.0°, in 1904. The average temperature of the several States of the section was as follows: Maine, 15.5°; New Hampshire, 19.1°; Vermont, 17.3°; Massachusetts, 26.9°; Rhode Island, 28.6°; Connecticut, 27.4°. The average temperature for the section was 0.9° above the normal. The departures from the normal for the several States were as follows: Maine, +0.5°; New Hampshire, +0.2°; Vermont, +0.8°; Massachusetts, +1.4°; Rhode Island, -0.2°; Connecticut, +1.6°. The highest monthly mean was 32.6°, at New London, Conn.; the lowest, 6.4°, at Van Buren, Me. The highest recorded was 55°, at Boston, Mass. on the 14th; the lowest, -36°, at Van Buren, Me. on the 21st. The greatest local monthly range was 78°, at Van Buren, Me.; the least, 37°, at New London, Conn. The greatest daily range was 50°, at Plymouth, Mass. on the 13th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 13 stations reporting, was 75 per cent, which was 1 per cent below the mean for January, 1916, and normal for the month. The highest monthly average was 84 per cent, at Northfield, Vt. and Nantucket, Mass.; the lowest, 66 per cent, at Portland, Me.

## PRECIPITATION.

The average for the section, as determined from the records of

83 stations, was 3.18 inches, which was 1.55 inches above the average for January, 1916. During the past 29 years the average January precipitation has been less in 13 and greater in 16 years than that of the present month. The greatest January precipitation during this period was 6.83 inches, in 1891; the least, 1.63 inches, in 1916. The average for the several States was as follows: Maine, 3.71 inches; New Hampshire, 2.92; Vermont, 2.86; Massachusetts, 2.99; Rhode Island, 3.33; Connecticut, 3.20. The average for the section was 0.28 inch below the normal for the month. The departures from the normal for the several States were as follows: Maine, +0.36 inches; New Hampshire, -0.04; Vermont, +0.12; Massachusetts, -0.74; Rhode Island, -0.97; Connecticut, -0.71. The greatest monthly amount was 5.48 inches, at Bar Harbor, Me.; the least, 1.87 inches, at Cornwall, Vt. The greatest amount in 24 hours was 1.87 inches, at Bar Harbor, Me. on the 6th. The average snowfall for the section was 16.6 inches, which was 7.8 inches above the average for January, 1916, and 2.1 inches above the normal for the month as determined from the records of the past 30 years. The greatest average January snowfall during this period was 29.0 inches, in 1904; the least, 4.6 inches, in 1913. The average fall in the several States was as follows: Maine, 25.2 inches; New Hampshire, 18.5; Vermont, 20.8; Massachusetts, 12.3; Rhode Island, 8.0; Connecticut, 6.8. The average number of days with .01 inch or more of precipitation was 12, which was 2 greater than the average for January, 1916, and 1 above the normal number for month.

## WIND.

The prevailing direction of the wind was from the northwest, which is the normal direction for the month, as determined from the records of the past 30 years. The average monthly wind movement for the section, 14 stations reporting, was 8,896 miles. The greatest monthly wind movement was 15,402 miles, at Block Island, R. I.; the least, 4,069 miles, at Concord, N. H. The average hourly velocity was 12.0 miles, which was 1.2 miles below the average for January, 1916, and 0.1 mile above the normal for the month. The highest recorded velocity was 79 miles per hour from the west, at Blue Hill Observatory, Hyde Park, Mass. on the 14th. This is somewhat greater than the usual maximum velocity for January.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 10; partly cloudy, 6; cloudy, 15. The normal for the month, as determined from the records of the past 30 years, is 10 clear, 8 partly cloudy, and 13 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 39, which was 5 per cent below the average for January, 1916, and 5 per cent below the normal for the month, as determined from the records of the past 24 years. The greatest percentage of possible sunshine in any January since the beginning of the automatic records in 1894, was 58, in 1899; the least, 34, in 1909. The greatest percentage of possible sunshine at any station for January, 1916, was 52, at Portland, Me.; the least, 29, at Northfield, Vt.

## DATES OF MISCELLANEOUS PHENOMENA.

*Auroras*.—North Bridgton, Me., 23; Enosburg Falls, Vt., 12, 16.

*Thunderstorms*.—Bridgeport, Falls Village, Hartford and New Haven, Conn., 31st.

*Halos, Lunar*.—Bethlehem, N. H., 12, 31; Concord, N. H., Blue Hill and Boston, Mass., 8; Enosburg Falls, Vt., 1, 27; Woodstock, Vt., 11; New Haven, Conn., 4, 6.

*Halos, Solar*.—Eastport, Me., 15, 21; Enosburg Falls, Vt., 31; Northfield, Vt. and Somerset, Mass., 15; Woodstock, Vt., 9, 15, 31; Blue Hill, Mass., 15, 21, 25; Boston, Mass., 8, 20, 25, 26, 31; New Haven, Conn., 25, 27.



Climatological Data for January, 1917.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.				Precipitation, in inches.				No. of days.				Prevailing direction of wind.	Observer.			
				Mean.	Departure from the normal.	Highest.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.			Partly Cloudy.	Cloudy.	
Maine.																				
Bar Harbor	Hancock	20	31	23.4	+1.8	47	14	-6	20	28	5.48	+0.25	1.87	11.8	11	16	4	11	nw.	William Miller.
Cornish	York	778	62	20.4	+0.4	50	30	-15	20	47	4.84	+0.51	1.30	24.5	10	11	5	15	w.	T. H. West.
Eastport	Washington	53	45	20.6	+0.5	47	14	-8	20	33	3.87	+0.03	0.87	19.6	19	6	13	12	w.	U. S. Weather Bureau.
Fairfield	Somerset	90	32																	U. Paperboard Co., Inc.
Farmington	Franklin	450	20	15.2	+0.1	42	14	-17	24	37	3.89	+0.49	1.12	25.0	15	10	12	9	nw.	State Normal School.
Gardiner	Kennebec	163	25	19.4	+1.8	46	14	-8	13	32	4.24	+0.53	1.00	20.0	11	12	5	14	nw.	Samuel D. Soule.
Greenville	Piscataquis	1,140	13	12.4		43	14	-16	20	36	3.95	+1.10	0.90	39.5	16	11	2	18		U. S. Weather Bureau.
Houlton	Aroostook	362	15	12.0		40	14†	-22	21†	42	2.35	-0.09	1.00	23.5	8	11	3	17		Bangor & Aroostook RR.
Langtown	Franklin	1,500	1	12.6		42	14	-23	20	34	2.15		0.42	23.5	19	8	9	14		Langtown Co.
Lewiston	Androscoggin	185	34	18.8	+0.6	45	14	-6	13†	36	4.14	-0.12	1.16	24.6	16	10	13	8	nw.	Union Water Power Co.
Madison	Somerset	257	14	13.9		46	11	-18	20†	41	3.12	-0.48	0.97	25.0	11	12	1	18	w.	William Jardine.
Millinocket	Penobscot	386	14	12.6		45	14	-21	29	35	4.41	+0.85	0.94	32.0	14	13	3	15	w.	Great Northern Paper Co.
North Bridgton	Cumberland	450	24	17.5	-0.9	48	14	-18	20	44	3.86	+0.31	1.40	37.0	13	11	4	16	n.	C. L. Chadbourne.
Orono	Penobscot	129	48	20.2	+4.0	50	8	-10	20	40	4.11	-0.09	0.95	24.0	10	15	7	9	nw.	Maine State College.
Patten	do	550	15	7.2†		45†	15	-23†	27	44†	2.40	-0.67	1.00	14.0	5	5†	0†	22†	ne.	Bangor & Aroostook RR.
Portland	Cumberland	99	46	22.4	+0.4	47	14	-2	20	36	4.53	+0.72	1.19	24.2	15	11	7	13	w.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	8	7.4		42	14	-29	29	37	4.00	+1.58	1.00	36.5	10	12	6	13	e.	E. M. Libby.
Rumford	Oxford	505	24	16.4	-0.1	42	14	-14	24	35	3.86	+0.28	1.23	27.0	13	15	5	11	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	13	6.4		42	14	-36	21	43	3.39	+1.09	0.70	28.3	11	15	3	13	nw.	Rev. J. M. Thomas.
Winslow	Kennebec	90	22	15.1	-2.7	47	14†	-9	20†	37	2.88	-0.24	0.94	19.0	11	11	6	14	w.	Hollingsworth & Whitney.
New Hampshire.																				
Alstead Center	Cheshire	1,120	13	20.2	+1.2	46	14	-9	12	38	2.80	0.00	0.80	23.0	10	11	7	13	nw.	Frank Dewing.
Bethlehem	Grafton	1,470	25	15.4	0 0	45	14	-19	12	43	2.36	-0.03	0.62	15.7	13	9	7	15	sw.	Benjamin Tucker.
Concord	Merrimac	350	57	21.4	+0.2	48	14	-6	13	36	3.35	+0.01	1.31	18.8	12	8	6	17	nw.	U. S. Weather Bureau.
Durham	Stafford	88	22	23.0	+0.3	50	14	-2	12	33	3.16	-0.28	0.99	15.0	11	7	15	9	nw.	N. H. Agr. College.
Franklin	Merrimac	440	18	19.8	-0.8	45	14†	-10	24	41	3.73	+0.72	1.22	20.0	11	10	3	18	nw.	Dr. C. P. Webster.
Glencoff	Grafton	1,650	4	14.9		42	14	-13	12	38	2.69		0.80	20.6	15	14	5	12	nw.	State Sanatorium.
Grafton	do	863	31	16.3	-0.5	44	14	-17	13	46	2.15	-0.86	0.62	16.0	10	11	5	15	nw.	P. R. Kimball.
Hanover	do	603	83	17.9	-1.0	46	14	-13	20	41	2.03	-0.72	0.63	14.2	12	1	12	18	n.	Dartmouth College.
Keene	Cheshire	506	32	21.0	+0.1	48	14	-13	27	38	3.41	+0.76	0.92	13.8	10	7	11	13	sw.	Samuel Wadsworth.
Nashua	Hillsboro	125	32																	C. B. Stevens.
Newton	Rockingham	126	29	22.6	-0.4	51	14	-7	23	34	2.85	-0.48	1.01	14.0		8	12	11	nw.	W. C. Gale.
Plymouth	Grafton	500	29	17.2	+0.8	45	14	-17	24	36	3.61	+0.46	0.87	32.2	13	14	0	17	w.	Mrs. Hattie G. Trow.
Vermont.																				
Bloomfield	Essex		10	14.0		43	14	-32	20	43	2.94	+0.64	1.07	24.5	17	8	3	20	s.	Lyman Falls Power Co.
Burlington*	Chittenden	404	10	16.0	-0.3	42	14	-14	12	32	2.18	+0.35	0.69	16.6	15	6	6	19	s.	U. S. Weather Bureau.
Cavendish	Windso	910	14	18.0		47	14	-15	13	44	3.04	+0.67	0.88	18.8	11	11	6	14	w.	Colonial Power Co.
Chelsea	Orange	840	22	15.6	-0.6	44	14	-20	13†	42	2.21	-0.48	0.55	18.0	8	8	5	18	s.	W. F. Dewey.
Conwall	Addison	517	24	19.4	+0.1	44	14	-13	12	32	1.87	-0.34	0.71	18.0	11	10	4	17	s.	C. H. Lane.
Enosburg Falls	Franklin	601	26	14.6	-1.5	44	14	-6†	12	43	2.33	-0.35	0.48	24.0	15	8	7	16	nw.	J. W. Pomeroy.
Hyde Park	Lamoille	576	5	15.7†		43†	14	-29	19	38†	2.85		0.71	25.0		8†	8†	9†		A. V. Wiswell.
Northfield	Washington	876	31	14.5	-0.6	46	14	-21	20	37	3.20	+0.71	1.19	23.2	12	5	6	20	nw.	U. S. Weather Bureau.
Rutland	Rutland	562	1	19.4		46	14	-15	12	42	2.29		0.72	12.6	13	9	8	14	nw.	George H. Ross.
Somerset	Windham	2,096	6	18.0		44	14	-13	11	37	4.70		0.71	21.2	11	8	12	11	nw.	Power Construction Co.
St. Johnsbury	Caledonia	711	24	16.2	+1.3	44	14	-23	20	39	2.84	+0.63	0.66	24.6	20	8	6	17	n.	Fairbanks Museum.
Vernon	Windham	310	2	21.8	+1.8	48	14	-11	27	36	3.37	-0.32	1.10	16.0	7	9	9	13	sw.	Conn. River Power Co.
Wells	Rutland	750	26	18.6	+0.4	44	14	-15	12	26	2.47	-0.11	0.68	10.0	9	8	9	14	sw.	E. R. Pember.
Woodstock	Windsor	700	25	19.4	+4.0	45	14	-17	27	41	3.05	+0.20	0.70	18.0	9	6	6	19		John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	28	23.4	-0.2	48	14	-4	27	33	3.30	-0.33	1.21	15.0	10	10	5	16	nw.	Mass. Agr. College.
Blue Hill†	Norfolk	640	33	26.4	+1.4	51	14	-1	12	34	3.32	-0.72	0.78	14.9	18	9	4	18	w.	Blue Hill Observatory.
Boston	Suffolk	124	47	30.2	+3.2	55	14	-5	12	40	2.82	-1.00	0.88	13.6	12	9	5	17	w.	U. S. Weather Bureau.
Chesnut Hill	do	124	37	29.0	+1.9	54	14	-1	12	34	3.69	-0.46	0.94	10.5	10	20	0	11		Met. Water Board.
Clinton	Worcester	370	21	25.8		51	14	-4	27	37	3.40	-0.31	0.80	13.5	11					Do.
Concord	Middlesex	139	27	24.5	+0.2	52	15	-3	27	34	2.50	-0.84	0.77	10.8	13	7	7	17	nw.	Fred A. Tower.
Fall River	Bristol	200	51	29.8	+1.1	52	14	-3	12	38	3.63	-0.86	1.19	12.2	14	8	15	8	sw.	C. V. S. Remington.
Fitchburg	Worcester	550	34	24.2	+0.6	51	14	-3	12	35	2.54	-0.81	0.70	14.0	10	13	7	11	nw.	Dr. A. P. Mason.
Frammingham	Middlesex	160	37	27.0	+1.3	53	14	0	27	39	3.46	-0.48	0.96	8.0	10					Met. Water Board.
Lawrence	Essex	51	33	24.6	+0.8	52	14	-1	24	35	2.95	-0.67	1.06	13.6	14	8	16	7	w.	Essex Company.
Lowell	Middlesex	100	32	25.6	+1.8	51	14	-7	23	43	2.73	-1.04	0.91		8					Props. Locks & Canals.
Nantucket	Nantucket	47	31	31.4	-0.7	50	6	8	12	31	2.68	-0.74	0.62	6.6	13	7	8	16	nw.	U. S. Weather Bureau.
New Bedford	Bristol	88	105	31.8	+3.5	51	5	4	11	39	3.55	-0.44	0.91	6.4	11	11	3	17	nw.	City Engineer.
Plymouth	Plymouth	50	32	27.5		52	14	0	12†	50	3.36	-0.82	0.80	16.0	9	17	4	10	w.	Miss L. B. Knapp.
Provincetown	Barnstable	40	30	29.8	0.0	48	14	9	12	26	2.60	-1.55	0.58	6.0	8	14	7	10	sw.	Gideon Bowley.
Rockport	Essex	25	15	28.0		50	14	3	12	27	2.55		1.10	11.3	11	11	4	16	nw.	U. S. C. G. Station.
Rutland	Worcester	1,160	15	22.0		48	14	-5	11†	38	3.48		1.04	10.3	11	12	2	17	w.	State Sanatorium.
Springfield	Hampden	199	7	27.8	+2.8	51	14	0	12	36	3.57	+0.14	0.85	14.4	10	11	7	13	nw.	U. S. Army.
Turners Falls	Franklin	200	31	23.9	+2.3	48	14	-4	27	30	2.94	-0.28	0.75	13.8	7	11	3	17		Turners Falls Co.
Westboro	Worcester	298	43	30.7	+5.2	53	14	5	27	24	1.97	-1.78	0.50	12.5	8					Miss E. W. Newcomb.
Williamstown	Berkshire	711	36	23.2	+1.4	49	14	-5	12	33	2.84	+0.16	0.70	15.4	16	7	9	15	w.	Williams College.
Worcester	Worcester	518	25	26.2	+1.4	50	14	-2	12	31	2.44	-1.24	0.75	15.8	12	8	8	15	sw.	G. W. Swan.
Rhode Island.																				
Block Island	Newport	26	37	32.0	+0.6	51	14	6	12	31	2.98	-0.88	0.88	4.1	13	9	2	20	nw.	U. S. Weather Bureau.
Bristol	Bristol	53	31	30.1	-1.1	49	14	5	12	30	2.74	-1.08	0.80	8.5	9	12	10	9	nw.	N. G. Herreshoff.
Kingston	Washington	250	28	24.4	-3.3	45	5†	-5	12	36	4.05	-0.91	1.33	7.5	11	9	8	14	sw.	Nathaniel Helme.
Narragansett Pier	Newport	22	35	27.1	-1.8	48	5	-1	12	36	3.86	-1.15	1.06	10.0	16	10	4	17	w.	U. S. Weather Bureau.
Providence	Providence	182	13	29.6	+2.4	53	14	2	12	32	3.01	-0.81	0.78	10.0	14	9	5	17	nw.	Do.
Connecticut.																				
Bridgeport	Fairfield	20	24	30.4		51	14	5	12	32	3.27	-0.65	0.92	8.4	13	9	7	16	nw.	William Jennings.
Canton	Hartford	900	56	26.0	+1.9	50	14	0	12	31	3.02	-0.91	0.96	8.0	9	7	6	17	sw.	G. J. Case.
Colechester	New London	370	31	27.4	+0.2	51	14	-1	12	31	4.13	+0.02	1.52	6.0	6	12	2	17	sw.	S. P. Willard

The departures from normal temperature and precipitation are computed only for such stations as have ten or more years of record, but all complete reports are used in determining section or State means.

Reference letters, a, b, c, appearing in the table indicate number of days missing; for example, <sup>b</sup> represents two days, etc.

<sup>†</sup> Also on other dates.      <sup>\*</sup> Received too late to be included in means and summaries.      <sup>\*\*</sup> Temperature data are from observed readings of the dry bulb; means are computed from observed readings.      <sup>§</sup> Thermometers not supplied by Weather Bureau.

T. Precipitation is less than 0.01 inch rain or melted snow.

†† Post-office addresses of these stations are as follows: Cornwall, Middlebury, Vt.; Blue Hill, Hyde Park, Mass.; Cream Hill, W. Cornwall, Conn.; Canton, Collinsville, Conn.



Day of month.

Continued on page 8.



## Daily Temperatures for January, 1917.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean		
Maine.																																		
Cornish	Maximum	35	47	22	38	37	36	36	43	44	48	37	20	16	47	31	32	35	39	27	16	22	31	27	37	38	27	27	18	21	50	40	33.1	
	Minimum	5	20	5	20	29	25	13	18	28	28	13	-6	-10	14	12	-2	5	17	-5	-15	-8	9	-9	-10	10	0	-11	-2	11	17	18	7.8	
Eastport	Maximum	30	34	32	35	38	44	37	33	45	44	41	9	33	47	27	19	27	31	28	9	14	21	14	31	23	23	10	11	31	30	27	28.6	
	Minimum	12	13	11	30	32	19	17	25	33	36	3	-2	1	27	14	10	12	20	-3	-8	-5	3	-2	12	15	7	-1	4	14	27	10	12.2	
Farmington	Maximum	31	34	29	34	36	40	30	34	34	40	34	15	12	42	24	18	27	29	28	9	17	20	19	20	20	21	15	10	15	38	30	25.6	
	Minimum	13	15	-2	12	28	19	12	18	20	23	14	-3	-12	8	10	3	8	3	-5	-15	-9	4	-2	-17	-7	-2	0	-6	10	18	4	4.9	
Greenville	Maximum	28	28	19	31	32	34	25	28	39	20	32	2	14	48	20	13	21	25	23	7	6	14	18	28	24	17	8	-10	-9	12	36	29	21.6
	Minimum	7	11	0	19	25	13	4	15	13	23	1	-12	-10	7	7	0	4	13	-11	-16	-10	-1	-6	1	7	-1	-6	-10	-9	9	8	5	8.1
Millinocket	Maximum	28	39	16	28	34	35	24	30	26	39	27	7	10	45	35	17	24	26	23	8	6	5	14	15	23	21	12	9	-12	26	29	22.5	
	Minimum	9	16	-11	11	23	11	8	16	15	20	7	-8	-16	10	10	2	6	6	-6	-15	-8	-4	-6	-8	7	3	-5	-13	-21	10	11	2.8	
Orono	Maximum	28	34	30	32	36	41	35	50	40	45	45	31	21	48	46	28	27	30	39	12	14	15	16	32	32	24	19	15	17	40	40	30.9	
	Minimum	10	17	-1	14	29	13	13	22	29	32	14	-5	-9	8	14	7	9	18	-1	-10	7	5	-3	-2	14	-5	-2	14	3	15	15	9.5	
Portland	Maximum	29	40	23	34	42	40	38	36	42	45	40	13	18	47	37	25	30	34	27	14	26	30	20	30	33	25	15	8	10	18	22	29.9	
	Minimum	17	21	17	23	32	24	23	27	33	34	4	2	3	18	17	12	15	20	1	-2	7	8	6	9	15	11	5	8	10	18	22	14.8	
Presque Isle	Maximum	21	25	12	28	35	35	25	27	35	31	20	3	7	42	87	15	18	25	25	0	-2	3	10	20	15	10	8	4	8	35	28	14.0	
	Minimum	3	6	-16	11	25	12	6	5	3	12	2	-7	-18	6	7	-5	0	0	-10	-20	-25	-12	-20	0	-2	-5	-27	-28	-29	-8	-5	-4.2	
Rumford	Maximum	27	34	20	35	34	38	31	33	36	41	24	4	14	42	20	20	22	30	16	12	16	18	16	21	23	23	14	1	3	0	17	7.6	
	Minimum	10	10	10	30	31	21	9	22	26	28	-2	-4	-7	15	9	5	7	22	-10	-10	-5	7	-6	14	12	0	-1	3	0	17	19	7.6	
Van Buren	Maximum	24	31	15	27	33	35	35	15	24	25	18	11	7	42	40	13	18	25	18	-3	0	0	12	21	19	5	5	8	9	30	18.8		
	Minimum	1	7	-17	11	24	26	15	-10	8	7	4	-10	-22	-1	5	-8	-3	-4	-12	-33	-36	-15	-22	-5	-11	-15	-17	-30	-31	2	-6.1		
New Hampshire.																																		
Alstead Center	Maximum	24	33	28	35	36	33	37	35	37	37	38	5	22	46	24	17	23	26	23	13	15	32	18	27	28	27	14	17	23	32	33	27.1	
	Minimum	14	23	16	25	30	22	12	28	32	32	0	9	2	21	10	6	11	19	1	-2	8	12	0	13	16	6	0	11	13	27	22	13.4	
Bethlehem	Maximum	21	28	31	32	43	43	33	32	40	37	35	-1	22	45	20	13	20	25	22	8	9	30	15	27	30	24	9	16	26	36	25	25.7	
	Minimum	0	10	6	27	19	15	9	12	31	31	-8	-19	-9	14	5	-1	-9	17	-13	-16	-6	5	-11	0	15	6	-12	-5	7	21	15	5.0	
Concord	Maximum	31	38	28	36	38	40	42	38	47	43	32	9	15	48	22	22	28	32	25	15	18	36	22	31	33	26	18	19	20	44	34	30.0	
	Minimum	5	20	19	27	32	24	19	25	32	32	-1	-3	-6	15	14	7	14	20	-1	-2	4	12	12	-5	15	10	4	11	11	19	25	12.7	
Franklin	Maximum	26	39	28	38	38	40	38	38	43	42	35	10	12	45	31	22	30	31	27	13	18	36	24	31	33	22	19	19	45	35	30.0		
	Minimum	4	22	15	23	31	25	12	20	27	29	3	-6	-9	12	12	6	5	14	0	-8	-6	9	-2	-10	10	5	-3	8	10	16	22	9.5	
Hanover	Maximum	21	36	24	34	36	41	39	37	39	40	37	6	16	46	23	20	26	31	28	9	12	35	19	27	29	27	13	18	21	41	32	28.0	
	Minimum	-3	19	10	27	31	21	7	21	32	33	-4	-11	-12	16	7	-4	7	19	-7	-13	-3	9	-10	-7	9	3	-11	5	14	20	16	7.8	
Nashua	Maximum	21	35	29	39	34	28	35	38	38	32	4	10	45	32	17	26	30	28	13	14	33	29	19	30	27	17	19	19	40	33	27.4		
	Minimum	0	19	10	22	31	26	9	18	17	23	4	-6	-13	10	12	3	-8	15	1	-9	-9	12	-1	-17	0	-4	0	4	13	16	20	7.0	
Vermont.																																		
Burlington	Maximum	28	33	30	34	41	41	37	33	37	36	4	1	26	42	11	20	27	30	11	15	5	33	16	28	23	17	11	10	33	39	27	25.3	
	Minimum	18	6	6	30	31	11	11	21	17	4	-10	-14	-1	16	6	2	12	11	-16	-13	0	2	-1	16	3	3	-9	3	5	27	16	6.8	
Enosburg Falls	Maximum	28	31	33	35	42	44	35	33	39	35	10	3	21	44	17	25	29	28	23	12	14	35	20	29	25	25	7	14	34	38	28	27.0	
	Minimum	10	3	1	3	6	11	6	18	19	11	-13	-29	-22	17	4	3	19	21	-6	-22	-12	4	-18	12	8	-2	-20	-4	-4	28	18	2.3	
Northfield	Maximum	25	33	26	33	43	44	38	38	42	38	5	6	17	46	16	19	25	29	12	9	10	38	16	31	30	18	10	27	24	40	29	26.1	
	Minimum	-11	6	2	24	23	10	3	19	36	5	-8	-17	-20	11	-4	-9	16	12	-20	-21	7	1	-12	-4	14	-3	-14	8	9	24	16	2.9	
St. Johnsbury	Maximum	14	32	23	35	35	40	31	34	40	37	29	6	13	44	33	20	25	30	27	6	11	34	20	26	33	29	19	17	26	39	31	27.1	
	Minimum	12	13	-1	22	31	23	3	15	29	28	3	-19	-21	13	10	-5	-5	21	-4	-23	-6	7	-10	-13	11	-1	-13	-1	12	21	18	5.4	
Wells	Maximum	25	31	30	35	40	38	34	32	38	34	20	-2	24	44	22	18	20	24	16	16	30	20	25	26	26	12	18	32	36	32	16.7		
	Minimum	8	22	18	28	26	24	16	18	30	20	-5	-15	-2	18	9	6	8	12	0	-5	5	6	-6	10	14	2	-8	8	10	30	16	10.0	
Massachusetts.																																		
Amherst	Maximum	31	38	33	38	35	34	41	37	41	42	27	14	22	48	24	26	33	32	25	26	24	41	26	30	33	21	29	24	42	36	36.7		
	Minimum	16	29	24	28	32	22	23	22	32	27	3	-2	4	17	14	13	12	20	7	9	13	16	4	0	14	-4	18	13	17	25	15.2		
Blue Hill	Maximum	32	38	35	33	47	47	45	40	45	42	42	11	31	51	26	25	32	32	29	22	24	41	23	32	36	31	20	25	25	45	39	33.9	
	Minimum	16	29	28	28	30	28	24	24	36	32	8	-1	6	26	15	14	15	23	11	9	17												







## Daily Precipitation for January, 1917—Continued from page 5.

Stations.	Watersheds.	Day of month.																															Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
<i>Rhode Island.</i>																																		
Block Island ***	Coast	T.		.44		.77	.11			.04		.17		.02	.46				T.	T.	T.	.01	.62				T.	.05	.16		.02	.11	2.9	
Bristol	do			.40		.80				T.		.22		*	.69							*	.40						.18		.05		2.7	
Greene	do				.40		1.05					.08			.80								.45						.11				2.8	
Hope Valley	do	.05		.44		.80	.60			T.	.08	.05		T.	.80					.05		.25	.58						.30	.11	T.	4.1		
Kingston	do	T.		.54		.80	.53			.12		.30		.05	.78					T.	T.	.10	.52						.25	.06	T.	4.0		
Narrag'sett Pier***	do	.05		.53	.01	.47	.59			.01	.05	.35		.06	.77					.05	.05	T.	.52					T.	.30	.04	.01	3.8		
Pawtucket	do			.41		*	1.21			.06		.11		*	.80							*	.50					*	.08				3.1	
Providence***	do	T.		.35		.88	.04			.04	T.	.12		.04	.78				T.		.02	.32	.15				T.	T.	.03	.08	T.	.01	1.5	3.0
Wallum Lake	do			.20		.40	1.05			.10				.40	.70								.20						.20		.50		3.7	
<i>Connecticut.</i>																																		
Bridgeport	Coast	T.		.40		.65	.18			.12	T.			.09	.49	T.			.02	T.		.15	.77				T.	T.	.07	.10		.08	.15	3.2
Canton	Connecticut			.12		.72				.09				*	.96							.60							.11	.21		.12	3.0	
Colchester	Coast			.73			1.12			T.		T.		T.	1.52					T.	T.	T.	.54						.20		.12	T.	4.1	
Cream Hill	Housatonic.			.30		.70				.03	T.			.05	1.05					T.		.08	.35			.05	.03		.15	.05			2.8	
Danielson	Coast			.30		1.28						.10	.10		1.30					T.		T.	.40	.35					.20				3.6	
East Hartland				.54		.80									.95							.66							.01	.11			3.0	
Falls Village	Housatonic.			.20		.95								.20	.81							.10	.27					.04	.05	.17		.40	3.1	
Hartford ***	Connecticut	T.		.46		.78				T.				.10	.62					.01		.36	.32			T.	.01	.02	.05	.07	.03	.07	2.9	
Hawleyville	Housatonic.					.62	1.00	.50							1.00								.73										3.8	
Lake Konomocoff	Coast			.40		1.10				.08	T.	T.		.10	.35	T.			T.	T.		.66	.20			.01	T.	.04	.15	.06	.04	.15	3.3	
New Haven***	do	.02		.50		.80	.60			.10		.27	.15	.10	.70							.35							.25	.21	.09		4.1	
N. Grosvenor Dale	do			.44		.48	.59			.06		.02		*	1.06							.57						.01	.13	.02			3.3	
Norwalk	do	T.		.39		.68				.08				*	.46	.04			.04			*	.70						.10		.15	.16	2.8	
Southington	do			.05	.08	.20	.25			T.				T.	1.00							T.	.30						.10		.05		2.0	
Storrs	Coast			.45	.49					.08					1.10							.53							.13	.08			2.8	
Torrington	Housatonic.	T.		.43		.85				.04	T.			.72	.20					T.		.46					T.	T.	.07	.10	.23	.37	3.4	
Voluntown	Coast	.02		.48		1.04				.12	.03			*	.80					.02		*	.38						.17				3.0	
Waterbury	Housatonic.	T.		.35		.80				.01				*	1.05							.50					T.	T.	.15		.18		3.0	

## Special River Rainfall Stations.

<i>Maine.</i>																																	
Brownville	Saco																																
Mattawamkeag	Penobscot																																
West Enfield	do																																
<i>New Hampshire.</i>																																	
Franklin Junction	Merrimack																																
Lancaster	Connecticut																																
Manchester	Merrimack																																
Sewall's Falls #	do																																
West Stewartstown	Connecticut	T.	.05			.11			.03	T.	.04	T.		.17	.43				.57	.10		T.	.31	.29		.04	.08		.12	.93	.07		3.34
<i>Vermont.</i>																																	
Bellow's Falls	Connecticut																																
Wells River	do																																
White River Junction	do		.01		.39		.80				.01	.19		T.	.46	.22				.05	T.	.13	.43	.07		.08			.04	.08	.20		3.16
<i>Massachusetts.</i>																																	
Holyoke	Connecticut																																

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

T. Precipitation is less than 0.01 inch rain or melted snow.

† Post-office addresses of these stations are as follows: Lington, Re.ington, Me.; Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.; Moss Brook, Wendell Depot, Mass.; Priest Brook, Winchendon, Mass.; Sewall's Falls, Concord, N. H.

## Comparative Data for New England for January.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.								
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888....	15.4	59	-44	4.31	.....	14	23.3	10	13	7	.....	nw.	12.0	56	se.	1903....	22.8	57	-37	3.56	2.40	10	11.1	12	8	11	55	w.	10.7	56	w.
1889....	30.7	63	-14	4.97	.....	12	10.0	10	10	11	.....	nw.	11.5	70	e.	1904....	15.0	53	-44	3.76	1.75	12	29.0	12	6	13	49	nw.	10.1	66	nw.
1890....	28.6	69	-23	2.97	.....	15	8.9	7	9	15	.....	nw.	12.3	66	nw.	1905....	18.3	56	-45	3.81	3.30	10	24.9	12	8	11	51	nw.	11.8	84	se.
1891....	26.0	59	-30	6.83	.....	16	14.0	8	9	14	.....	nw.	11.3	72	ne.	1906....	30.3	69	-25	2.83	2.20	9	7.5	12	8	11	48	sw.	11.0	67	ne.
1892....	24.6	61	-30	4.81	.....	13	12.3	7	10	14	.....	nw.	12.2	66	se.	1907....	20.5	65	-45	2.81	2.15	12	16.5	8	8	15	35	nw.	10.3	67	w.
1893....	15.3	55	-39	2.54	.....	13	12.9	11	8	12	.....	nw.	10.9	83	se.	1908....	24.7	62	-26	2.94	2.00	8	8.2	14	8	9	52	nw.	13.4	83	ne.
1894....	24.7	58	-40	2.98	.....	14	18.1	11	8	12	.....	nw.	12.1	78	se.	1909....	24.5	67	-32	4.23	2.78	12	18.8	9	7	16	34	nw.	13.0	60	s.
1895....	22.6	56	-29	3.46	.....	14	15.5	10	9	12	.....	w.	11.2	66	se.	1910....	25.6	64	-28	4.65	3.53	12	12.4	12	6	13	40	nw.	12.3	78	se.
1896....	19.9	50	-28	1.68	.....	9	10.8	10	9	12	.....	n.	13.1	66	e.	1911....	25.2	60	-33	2.73	1.50	12	6.4	11	7	13	38	nw.	12.1	66	w.
1897....	23.0	60	-29	3.72	2.80	9	20.4	9	10	12	.....	nw.	13.1	66	e.	1912....	15.2	55	-39	3.07	2.28	11	21.6	12	8	11	47	sw.	12.2	77	nw.
1898....	21.9	58	-39	5.03	2.00	12	27.4	11	8	12	.....	nw.	12.3	71	se.	1913....	32.1	63	-30	3.30	1.75	12	4.6	11	7	13	45	nw.	12.1	70	sw.
1899....	22.3	59	-32	3.59	2.38	9	9.5	14	8	12	.....	nw.	12.1	70	w.	1914....	21.1	63	-44	2.93	3.00	11	10.4	9	6	16	35	nw.	13.4	80	nw.
1900....	23.8	62	-28	4.59	3.00	10	19.7	12	9	10	.....	nw.	12.1	68	w.	1915....	25.8	62	-38	5.32	3.85	12	12.1	11	7	13	44	nw.	10.7	78	nw.
1901....	21.8	55	-31	2.24	1.50	10	15.0	11	8	12	.....	nw.	11.8	60	e.	1916....	25.8	70	-29	1.63	0.98	10	8.8	11	7	13	44	nw.	13.2	66	nw.
1902....	21.1	56	-20	2.40	3.08	8	9.5	14	7	10	.....	nw.	10.7	64	nw.	1917....	21.9	55	-36	3.18	1.87	12	16.6	10	6	15	39	nw.	12.0	79	w.



U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

FEBRUARY, 1917

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BY  
JOHN W. SMITH  
METEOROLOGIST

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
MARCH 20, 1917



Departure of the Mean Temperature from the Normal, February, 1917.





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

VOL. XXIX. BOSTON, MASS., FEBRUARY, 1917. No. 2.

## GENERAL SUMMARY.

February was colder than usual and deficient in precipitation. The first and second decades were decidedly below the normal in temperature, and the remainder of the month near the normal. Minimum temperatures near or below zero were general on the 3d, 12th and 13th. The average precipitation was about two-thirds of the normal amount. The only heavy snowfall was on the 5th, when from 8 to 15 inches fell in southern Maine, southeastern New Hampshire, the interior of Massachusetts, and northern Connecticut. Snow covered the ground through the month, the depth varying in the southern States from a few inches on the coast to between 12 and 16 inches in the interior; in the northern States there was from 2 to 4 feet in the woods.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 14 stations reporting, was 29.91 inches, which was .13 inch below the normal for the month, and .07 inch below the mean for February, 1916. The highest monthly mean was 29.95 inches, at New Haven, Conn.; the lowest, 29.82 inches, at Eastport, Me. The highest recorded was 30.55 inches, at Burlington, Vt. on the 2th; the lowest, 28.85 inches, at Blue Hill Observatory, Hyde Park, Mass. and Providence, R. I. on the 5th, and at Eastport, Me. on the 9th. The range for the section was 1.70 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 14 stations, was 18.6°, which was 1.7° below the mean for February, 1916. During the past 29 years the average February temperature has been higher in 24 years and lower 5 years than that of the present month. The highest average February temperature during this time was 30.3°, in 1890; the lowest, 5.9°, in 1907. The average temperature for the several States of the section was as follows: Maine, 12.7°; New Hampshire, 7.0°; Vermont, 13.6°; Massachusetts, 23.0°; Rhode Island, 4.7°; Connecticut, 23.5°. The average temperature for the section was 3.6° below the normal. The departures from the normal for the several States were as follows: Maine, -4.0°; New Hampshire, -3.4°; Vermont, -4.7°; Massachusetts, -2.9°; Rhode Island, -4.7°; Connecticut, -3.0°. The highest monthly mean was 27.6°, at Nantucket, Mass. and New London, Conn.; the lowest, 5.1°, at Presque Isle, Me. The highest recorded was 54°, at Rockport, Mass. on the 10th; the lowest, -39°, at Bloomfield, Vt. on the 13th. The greatest daily monthly range was 81°, at Bloomfield, Vt.; the least, 1°, at Nantucket, Mass. The greatest daily range was 51°, at Bangtown, Me. on the 22d, and at Bloomfield, Vt. on the 13th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 13 stations reporting, was 74 per cent, which was 2 per cent below the mean for February, 1916, and 1 per cent below the normal for the month. The highest monthly average was 83 per cent, at Northfield, Vt. and Amherst, Mass.; the lowest, 66 per cent, at Portland, Me., Boston, Mass. and Hartford, Conn.

## PRECIPITATION.

The average for the section, as determined from the records of 14 stations, was 2.19 inches, which was 1.98 inches below the average for February, 1916. During the past 29 years the average February precipitation has been greater in 24 years and less in

5 years than that of the present month. The greatest February precipitation during this time was 7.13 inches, in 1900; the least, 0.96 inch, in 1901. The average for the several States was as follows: Maine, 2.21 inches; New Hampshire, 1.66; Vermont, 1.37; Massachusetts, 2.62; Rhode Island, 2.89; Connecticut, 2.42. The average for the section was 1.07 inches below the normal for the month. The departures from the normal for the several States were as follows: Maine, -0.87 inches; New Hampshire, -1.23; Vermont, -0.96; Massachusetts, -0.92; Rhode Island, -1.25; Connecticut, -1.42. The greatest monthly amount was 4.10 inches, at Rutland, Mass. and Narragansett Pier, R. I.; the least, 0.74 inches, at Northfield, Vt. The greatest amount in 24 hours was 1.50 inches, at Rutland, Mass. on the 5th. The average snowfall for the section was 12.8 inches, which was 9.6 inches above the average for February, 1916, and 3.8 inches below the normal for the month as determined from the records of the past 29 years. The greatest average snowfall in any February during this period was 39.1 inches, in 1893; the least, 7.8 inches, in 1912. The average fall in the several States was as follows: Maine, 19.4 inches; New Hampshire, 12.5; Vermont, 10.2; Massachusetts, 10.8; Rhode Island, 6.3; Connecticut, 11.4. The average number of days with .01 inch or more of precipitation was 8, 5 less than the average for February, 1916, and 3 less than the normal number for the month.

## WIND.

The prevailing direction of the wind was from the northwest, which is the normal direction for the month, as determined from the records of the past 30 years. The average monthly wind movement for the section, 14 stations reporting, was 8,564 miles. The greatest monthly wind movement was 15,150 miles, at Block Island, R. I.; the least, 4,138 miles, at Concord, N. H. The average hourly velocity was 12.7 miles, which was 0.2 mile above the average for February, 1916, and 0.3 mile above the normal for the month. The highest recorded velocity was 72 miles per hour from the west, on the 5th, at Block Island, R. I. This is about the usual maximum velocity for the month.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 12; partly cloudy, 7; cloudy, 9. The normal for the month, as determined from the records of the past 30 years, is 11 clear, 7 partly cloudy, and 10 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 52, which was 10 per cent above the average for February, 1916, and 2 per cent below the normal for the month, as determined from the records of the past 25 years. The greatest percentage of possible sunshine at any station was 62, at Portland, Me.; the least, 40, at Block Island, R. I. The greatest percentage of possible sunshine in any February since the beginning of the automatic records in 1893, was 65, in 1901; the least, 36, in 1897.

## DATES OF MISCELLANEOUS PHENOMENA.

*Auroras*.—Howe Brook, Me., Bethlehem, N. H., Burlington and Northfield, Vt., 15; North Bridgton, Me., 11, 16.

*Halos, Solar*.—Cornish, Me., 14, 22, 25, 28; Eastport, Me. and Bethlehem, N. H., 28; Woodstock, Vt., 14, 22, 24, 28; Blue Hill, Mass., 15, 23; Boston, Mass., 8, 15, 17, 25; New Haven, 13, 18, 23; Southington, Conn., 15.

*Halos, Lunar*.—Eastport, Me., 3; Bethlehem, N. H., 3, 25; Enosburg Falls, Vt., 5, 26; Blue Hill, Mass., 5, 25, 27; Boston, Mass., 5, 8, 9, 27; Hingham, Mass., 25; Block Island, R. I., 4, 28; Hartford, 2, 27; New Haven, Conn., 28.

*Thunderstorms* (dates and number of observers reporting on each): Massachusetts—5th, 8; 26th, 3; 27th, 2. Rhode Island—1st, 1; 5th, 1; 6th, 1; 26th, 4; 27th, 1. Connecticut—1st, 2; 5th, 1.



## Climatological Data for February, 1917.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				No. of days.				Observer.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.		Cloudy.	Prevailing direction of wind.
Maine.																				
Bar Harbor	Hancock	20	31	19.6	-3.0	49	27	-16	3	44	3.67	-0.70	1.00	22.0	11	15	7	6	nw.	Mount Desert Nurseries.
Cornish	York	778	62	17.5	-3.9	53	27	-27	12	50	5.02	-1.83	0.55	15.0	6	9	11	8	sw.	T. H. West.
Eastport	Washington	53	45	17.6	-3.8	43	27	-16	3	31	2.79	-0.83	0.56	21.2	11	11	7	10	w.	U. S. Weather Bureau.
Farmington	Franklin	450	20	13.7	-3.8	42	27	-18	3	37	1.90	-1.25	0.55	18.0	7	11	9	8	nw.	State Normal School.
Gardiner	Kennebec	163	25	14.6	-5.3	49	27	-22	12	45	2.57	-0.87	1.16	22.0	10	16	3	9	nw.	Samuel D. Soule.
Greenville	Piscataquis	1,140	13	9.1		37	24	-24	3	42	1.90	-0.85	0.55	19.0	7	16	2	10	nw.	U. S. Weather Bureau.
Houlton	Aroostook	362	15	8.6		34	21	-25	3	49	1.20	-0.92	0.50	15.0	5	17	5	6	w.	Bangor & Aroostook RR.
Langtown	Franklin	1,500	1	9.2		40	27	-24	22	51	1.70	-0.42	0.40	14.0	9	13	13	7	nw.	Langtown Co.
Lewiston	Androscoggin	185	34	13.5	-6.4	44	27	-26	11	41	2.07	-1.77	0.71	1.0	9	10	12	6	nw.	Union Water Power Co.
Madison	Somerset	257	14	9.0		44	28	-23	13	44	1.51	-1.32	0.37	17.0	6	19	1	8	w.	William Jardine.
Millinocket	Penobscot	386	14	11.2		42	27	-20	3	49	2.40	-0.49	0.52	26.8	8	17	0	11	w.	Great Northern Paper Co.
North Bridgton	Cumberland	450	24	15.6	-3.8	48	8	-30	3	40	2.47	-0.93	0.45	22.0	9	13	9	6	n.	C. L. Chadbourne.
Orono	Penobscot	129	48	18.0	-1.2	45	18	-20	3	45	3.67	+0.05	1.20	31.5	9	17	2	9	nw.	Maine State College.
Patten	do	550	15	6.0		40	19	-22	2	44	1.80	-0.80	0.80	18.0	3	14	1	4	n.	Bangor & Aroostook RR.
Portland	Cumberland	99	46	19.3	-4.5	50	27	-13	3	28	3.35	-0.30	1.44	17.3	12	11	8	9	nw.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	8	5.1		39	24	-25	12	49	2.20	+0.33	0.40	22.0	8	14	4	10	n.	E. M. Libby.
Rumford	Oxford	505	24	14.0	-4.2	41	24	-14	3	36	1.15	-2.02	0.34	11.0	6	19	2	7	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	13	5.4		42	24	-25	13	50	2.01	-0.39	0.48	16.0	6	15	8	5	nw.	Rev. J. M. Thomas.
Winslow	Kennebec	90	22	14.9	-3.8	44	24	-23	12	44	1.61	-0.83	0.42	19.5	6	15	6	7	w.	Hollingsworth & Whitney.
New Hampshire.																				
Alstead Center	Cheshire	1,120	13	17.0	-2.8	44	27	-12	3	28	1.40	-1.40	0.35	16.0	7	17	4	7	nw.	Frank Dewing.
Bethlehem	Grafton	1,470	25	11.7	-5.7	45	27	-23	3	42	1.31	-1.05	0.60	11.0	7	16	4	8	w.	Benjamin Tucker.
Concord	Merrimac	350	57	18.5	-5.1	48	27	-13	3	34	1.50	-1.74	0.43	11.0	9	10	9	9	nw.	U. S. Weather Bureau.
Durham	Stafford	88	22	21.0	-3.7	49	27	-12	13	34	1.81	-1.28	0.47	9.8	7	14	6	8	nw.	N. H. Agr. College.
Franklin	Merrimac	440	18	19.0	0.0	44	24	-15	3	38	1.73	-1.08	0.45	12.2	8	11	8	9	nw.	Dr. C. P. Webster.
Glencoff	Grafton	1,650	4	12.2		45	26	-20	3	47	2.17		0.80	2.04	9	13	9	6	nw.	State Sanatorium.
Grafton	do	863	31																	P. R. Kimball.
Hanover	do	603	83	15.5	-3.6	46	27	-25	12	40	1.11	-1.28	0.27	5.9	9	1	16	11	s.	Dartmouth College.
Keene	Cheshire	506	32	18.8	-3.8	48	27	-22	13	41	2.28	-0.41	0.72	11.2	8	11	8	9	nw.	Samuel Wadsworth.
Nashua	Hillsboro	125	32																	C. B. Stevens.
Newton	Rockingham	126	29	20.3	-4.0	49	27	-22	3	33	1.89	-1.31	0.41	14.0	7	9	15	4	nw.	W. C. Gale.
Plymouth	Grafton	500	29	15.6	-2.3	42	24	-15	3	45	1.42	-1.49	0.34	13.2	8	17	0	11	w.	Mrs. Hattie G. Trow.
Vermont.																				
Bloomfield	Essex		10	10.0		42	27	-39	13	51	1.29	-0.53	0.37	12.8	8	14	8	6	s.	Lyman Falls Power Co.
Burlington	Chittenden	404	10	11.7	-6.2	40	26	-18	12	33	1.60	+0.23	0.77	10.2	8	7	11	10	s.	U. S. Weather Bureau.
Cavendish	Windsor	910	14	15.7		45	24	-27	12	45	2.16	-0.64	0.61	8.8	7	14	8	6	n.	Colonial Power Co.
Chelsea	Orange	840	22	11.9	-6.9	45	24	-31	12	46	0.94	-1.70	0.22	8.0	6	13	3	12	s.	W. F. Dewey.
Cornwall	Addison	517	24	14.7	-4.5	40	24	-20	12	32	1.08	-1.02	0.50	7.0	6	13	3	12	s.	C. H. Lane.
Enosburg Falls	Franklin	601	26	11.4	-5.6	40	19	-32	14	44	1.54	-1.18	0.38	18.5	11	10	11	7	nw.	J. W. Pomeroy.
Hyde Park	Lamoille	576	5	10.8		43	26	-32	13	41	1.10		0.30	18.5	12	9	8	11	n.	A. V. Wiswell.
Northfield	Washington	876	31	11.9	-5.3	49	27	-27	13	43	0.74	-1.52	0.20	7.4	4	6	9	13	n.	U. S. Weather Bureau.
Rutland	Rutland	562	1	15.8		48	17	-22	13	45	1.65		0.67	5.0	10	10	6	12	nw.	George H. Ross.
Somerset	Windham	2,096	6	13.0		44	26	-17	12	38	3.54		1.93	14.8	12	3	15	5	nw.	Power Construction Co.
St. Johnsbury	Caledonia	711	24	13.6	-3.6	41	27	-30	12	42	1.21	-0.89	0.27	10.5	10	13	6	9	n.	Fairbanks Museum.
Vernon	Windham	310	2	17.6	-4.6	44	27	-24	13	43	1.92	-1.07	1.00	8.0	6	13	9	6	nw.	Conn. River Power Co.
Wells	Rutland	750	26	14.2	-4.7	40	26	-18	3	34	1.49	-1.17	0.35	6.5	7	6	13	9	sw.	E. R. Pember.
Woodstock	Windsor	700	25	16.9	-0.5	47	27	-28	12	41	1.09	-1.65	0.30	11.0	5	7	11	10	n.	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	28	20.0	-4.9	49	27	-16	13	38	1.98	-1.44	0.62	11.0	6	12	11	5	nw.	Mass. Agr. College.
Blue Hill	Norfolk	640	33	22.8	-2.8	48	26	-6	13	30	3.15	-0.74	0.71	11.7	10	9	9	10	w.	Blue Hill Observatory.
Boston	Suffolk	124	47	25.8	-2.2	53	27	-3	3	28	2.67	-0.77	0.72	8.4	11	12	8	8	w.	U. S. Weather Bureau.
Chestnut Hill	do	124	37	25.4	-2.9	53	27	-6	13	33	2.68	-1.54	0.77	7.8	9	22	0	6	n.	Met. Water Board.
Clinton	Worcester	370	21	22.1		50	18	-19	12	34	2.54	-0.68	0.92	14.9	9					Do.
Concord	Middlesex	139	27	20.4	-3.0	48	27	-17	13	39	2.43	-0.81	0.80	14.6	9	10	9	9	sw.	Fred A. Tower.
Fall River	Bristol	200	51	25.8	-2.8	49	27	-1	13	22	2.73	-1.46	0.62	6.2	12	9	15	4	nw.	C. V. S. Remington.
Fitchburg	Worcester	550	34	21.5	-2.6	47	27	-13	12	29	2.31	-0.97	0.78	16.5	8	15	5	8	nw.	Dr. A. P. Mason.
Framingham	Middlesex	160	37	24.7	-2.0	49	27	-6	11	29	2.64	-1.33	0.84	11.2	9				w.	Met. Water Board.
Lawrence	Essex	51	33	21.5	-3.1	50	27	-13	3	34	2.42	-0.78	0.79	3.5	8	13	12	3	w.	Essex Company.
Lowell	Middlesex	100	32	23.0	-2.1	52	27	-13	12	35	2.54	-1.82	1.03		7				w.	Props. Locks & Canals.
Nantucket	Nantucket	47	31	27.6	-5.0	49	26	6	12	24	2.96	-0.15	0.76	7.1	13	6	11	11	w.	U. S. Weather Bureau.
New Bedford	Bristol	88	105																	City Engineer.
Plymouth	Plymouth	50	32	23.9		50	18	-2	12	31	2.49	-1.55	0.94	6.0	9	18	1	9	w.	Miss L. B. Knapp.
Provincetown	Barnstable	40	30	26.4	-2.8	48	18	2	3	25	3.28	-0.25	1.10	3.5	9	17	4	7	sw.	Gideon Bowley.
Rockport	Essex	25	15	25.2		54	10	-11	3	48	2.00		0.61	8.0	8	14	6	8	nw.	U. S. C. G. Station.
Rutland	Worcester	1,160	15	18.0		47	26	-11	11	35	4.10		1.50	19.2	8	15	4	9	w.	State Sanatorium.
Springfield	Hampden	199	7	23.8	-2.2	46	27	-8	13	31	2.73	-0.83	0.86	13.0	10	11	12	5	nw.	U. S. Armory.
Turners Falls	Franklin	200	31	20.2	-2.5	45	27	-16	13	35	2.35	-0.09	0.45	11.5	9	14	5	9	n.	Turners Falls Co.
Westboro	Worcester	298	43																	Miss E. W. Newcomb.
Williamstown	Berkshire	711	36	18.8	-3.3	49	27	-12	13	31	2.17	-0.21	0.70	9.8	10	4	13	11	w.	Williams College.
Worcester	Worcester	518	25	23.1	-1.9	47	27	-9	12	25	2.18	-1.20	0.78	21.8	8	12	8	8	nw.	G. W. Swan.
Rhode Island.																				



## Daily Precipitation for February, 1917.

Stations.	Watersheds.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Maine.																																	
Ashland	St. John	.06								.20	.06										.12			.01	.06		.28	.04				0.83	
Bar Harbor	Coast	.20				1.00	.15			.32	.20						.20	.40			.30				.11		.36	.10				2.47	
Cambridge	Kennebec																																
Cornish	Saco	.10			T.	.55				.40																						2.02	
Danforth	Penobscot	.07				.77				.85							.05				.20											2.29	
Eastport***	Coast	.12				.51	T.			.32	.03					.01	.03	.44			.56	T.		.01	.33	.43						2.79	
Eustis	Kennebec	.23	T.		T.	.10	T.		T.	.05	.38								T.		.36	T.			.04	.54	T.	T.				1.70	
Fairfield	do																																
Farmington	do	.29				.55				.20	.23										.34				.17	.12						1.90	
Gardiner	do	.02				1.16	.06			.39	.16						.05				.32				.15	.20	.02					2.57	
Greenville***	do	.25	T.			.20			T.	T.	.40	.05			T.						.50	T.		T.	.10	.10	T.					1.90	
Houlton	St. John					.20				.20							.50				.10				.20							1.39	
Howe Brook	Penobscot					.10		.10		.20	.40										.30			.20	.50							1.80	
Langtown**	Kennebec	.22	T.			.14	.02			T.	.14	.20							T.		.42	T.		T.	.08	.42	.06					1.70	
Lewiston	Androscoggin		.18			.42			T.		.51	.20				.05		.01			.29				.21	.20						2.07	
Madison	Kennebec	.14				.27				.37											.36			.07	.30							1.51	
Millinocket	Penobscot	.29				.37				.52										.29	.02		.19	T.	.30	.42						2.49	
North Bridgton	Saco	.20				.24	.42			.34	.36										.40			.19	.22	.05						2.47	
Orono	Penobscot	.50				.60	1.20				.10						.15	.10			.40				.10	.52						3.97	
Patten	do								.60															.40	.80							1.80	
Portland***	Coast	.10			.01	1.43				.47	.04			.02	T.		.04				T.	.37		.05	.26	.55	.01					3.35	
Presque Isle	St. John	.30	.10			T.				.30	.40										.30	.10		T.	.20	.40	T.					2.20	
Rumford	Androscoggin	.34				.07				.28											.03	.20		T.	T.	.23						1.15	
Van Buren	St. John					T.			T.	.68							T.				.45	.15		.10	.68	.35						2.01	
Winslow	Kennebec	.20				.42				.21							T.				.41				.10	.17						1.61	
New Hampshire.																																	
Alstead Center	Connecticut	.11				.11				.27											.25	T.	T.		.07		.35	.24				1.40	
Bethlehem	do	.15				.10				.50	.10				T.				T.							.24	.02					1.31	
Brookline	Merrimack	.35				1.25				.20								.05			.05		T.		.32	.70						2.87	
Concord***	do	.09		.03	.20					.28					T.						.18		T.	.10	.09	.43						1.50	
Durham	do	.18				.47				.16											.35				.17	.32	.16						1.81
Franklin	do	.17		T.		.68				.26	.05				T.						.45				.14	.21	.27					1.73	
Glencoff	do	.23		.03	.80					.38				.06							.17				.10	.02	.38						2.17
Grafton	do																																
Hanover	Connecticut	.16		.01	T.	.12			T.	.26	.01			T.	T.						.21			T.	.01	.27	.06					1.11	
Keene	do	.24				.35				.22											.22		.01		.20	.72	.32					2.28	
Nashua	Merrimack																																
Newton	do	.27				.36				.27					.01		T.				.32				.25	.41						1.89	
Plymouth	do	.18		T.	T.	.12				.19	.03				T.			T.			.34			T.	.18	.30	.08						1.42
Vermont.																																	
Bloomfield	Connecticut	.15			.06				.02		.25										.28				.02		.37	.14				1.29	
Burlington***	Champlain	.15		T.		T.		T.	T.	.27				.02	T.	T.					.16		.04		.03	T.	T.	.77				1.60	
Cavendish	Connecticut	.35				.25				.30	T.				.06			T.							T.	.61	.14					2.16	
Chelsea	do	.15								.22											.20				.08	.16	.10					0.94	
Cornwall	Champlain	.03				.08					.12										.30	T.		T.	.05	.50						1.08	
Enosburg Falls	do	.38		.01	.06					.09	.20	.24			.02	T.					.20				.03	.24	.07					1.54	
Hyde Park	do	.17	T.		.02	.04	T.			.07	.10				.02	T.					.16	T.			.03	.30	.04					1.10	
Northfield***	Champlain	.18		T.			T.	T.	T.	.20	T.			T.							.16	T.		T.	T.	.20						0.74	
Rutland	do	.40	.01			.04	.04		T.		.28				.02						.12				.02	.05	.62					1.65	
Somerset	Connecticut	.10	.07			.44	.18			.29				.04							.27			.02	.05	.14		1.93				3.54	
St. Johnsbury	do	.18	T.	.01	.07				.05	.11	.24	.01			T.						.25	T.				.27	.01					1.21	
Vernon	do	.24				.23				.20											.10			T.	.15		1.00					1.92	
Wells	Champlain	.24				.18				.18											.22				.06	.35	.26					1.49	
Woodstock	Connecticut	.19		T.		.20				.25											.30			T.		.15						1.09	
Massachusetts.																																	
Amherst	Connecticut	.24			T.	.34				.28											.15			T.	.25	.62						1.98	
Ashland	Merrimack	.15				.87				.37				.01							.22		.04		.29	*	.69					2.64	
Bakers Bridge**	do					.50				.23																.55	.58					1.86	
Bedford	do	.29				.63				.21					.01						.28		T.	T.	.22	.23	.37					2.24	
Blue Hill	Coast	.67				.71			T.	.40	.05				.03		T.				.24		.03	T.	.24	.18	.60					3.15	
Boston***	do	.67			.04	.50				.28	T.			.02	T.						.05	.17		T.	.07	.16	.69	.02	T.			2.67	
Brookton	Coast	.50				.35	T.			.46	T.				.01						T.				.38	.10						1.80	
Chestnut Hill	do	.15			.20	.57				.40				.03							.30			T.	.24	.03	.76					2.68	
Clinton	Merrimack	.03				.92			T.	.36				.03							.19			.02	.25	*	.74					2.54	
Concord	do	.29				.80				.29				.01		T.					.25	.01		.01	.20	.14	.44					2.43	
Fall River	Coast	.40			T.	.43				.50				.01	.01	.01				.03	.13		.14	.15	.30	.62						2.73	
Fitchburg	Merrimack	.12				.																											



## Daily Temperatures for February, 1917.

Stations.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean	
Maine.																																		
Cornish	Maximum	28	20	8	25	28	33	31	42	37	34	22	19	24	29	36	39	36	49	35	35	37	29	35	51	28	45	53	36				33.0	
	Minimum	14	-5	-18	2	14	-7	-16	15	25	6	-5	-27	-26	-7	-2	0	-5	14	-2	18	1	-12	-7	28	7	7	28	17				2.0	
Eastport	Maximum	18	12	-5	22	32	22	32	39	42	32	5	10	6	15	18	27	26	32	37	20	32	26	24	34	38	23	41	43	29			26.0	
	Minimum	4	-11	-15	-6	22	8	6	29	2	5	-3	-8	-6	8	13	17	13	14	6	18	11	8	10	23	3	10	26	18				9.1	
Farmington	Maximum	22	10	0	20	24	28	26	34	32	26	8	8	16	22	26	27	32	32	31	30	30	22	30	40	34	34	42	31				25.6	
	Minimum	7	-9	-18	-17	7	10	-1	8	10	3	-13	-11	-13	-11	-2	-5	0	9	3	10	13	-13	12	28	0	-2	26	15				1.8	
Greenville	Maximum	12	7	-14	16	20	18	25	32	31	19	1	0	11	18	20	25	31	31	20	25	23	24	26	37	25	32	37	29				20.8	
	Minimum	1	-16	-24	-19	6	4	1	9	16	-5	-15	-14	-13	-5	0	-15	4	8	-9	0	9	18	-8	25	-9	-9	20	2				-2.6	
Millinocket	Maximum	12	12	-9	19	21	20	25	32	30	24	5	5	13	22	25	24	33	33	26	25	25	29	29	41	32	32	42	30				23.5	
	Minimum	-10	-9	-20	-17	5	9	-2	8	21	-1	-10	-11	-10	-4	-3	-12	3	21	-2	-2	13	-20	-11	26	4	-10	27	-6				-1.1	
Orono	Maximum	29	22	11	20	30	22	29	35	38	24	23	12	13	24	30	30	32	45	34	34	34	27	31	42	43	45	44	35				31.9	
	Minimum	3	-5	-20	17	11	5	-2	20	31	6	-6	-13	-10	2	2	5	-1	24	3	3	10	-12	-11	16	0	0	35	14				4.2	
Portland	Maximum	22	15	6	26	25	25	30	42	36	23	15	13	17	23	29	28	33	43	25	33	28	24	35	45	22	44	50	35				28.3	
	Minimum	11	-9	-13	4	15	8	2	27	23	5	-1	-10	-9	8	14	19	15	16	11	23	13	5	9	21	6	21	32	26				10.3	
Presque Isle	Maximum	0	-5	-5	17	18	18	23	36	25	20	0	7	13	10	22	18	22	33	12	20	18	20	28	39	22	32	35	26				18.7	
	Minimum	-19	-11	-21	-20	3	6	-15	15	5	-13	-25	-21	-20	-15	-18	-11	-15	-13	-13	-10	-23	-21	4	-13	-13	18	-14				-8.5		
Rumford	Maximum	19	10	-1	20	27	19	30	38	32	10	9	6	18	22	28	29	32	34	26	31	22	24	32	41	15	34	41	33				24.3	
	Minimum	11	-13	-14	-8	10	11	2	13	15	4	-9	-8	-6	-6	2	-7	8	12	7	18	7	17	24	26	42	28	32	14				3.8	
Van Buren	Maximum	3	2	-3	15	15	18	17	36	21	19	0	3	15	18	24	27	26	33	17	17	17	24	26	42	28	32	34	26				19.4	
	Minimum	-21	23	-24	-21	-9	5	-21	15	8	-1	-18	-16	-25	-21	-9	-18	-9	15	-7	-16	9	-21	-26	1	-12	13	15	-18				-8.7	
New Hampshire.																																		
Alstead Center	Maximum	29	22	5	20	22	20	26	35	33	17	17	5	15	20	22	27	28	38	24	35	34	22	33	33	25	40	44	33				25.9	
	Minimum	22	-4	-12	5	10	5	9	9	17	-1	0	-11	-12	3	10	3	13	25	2	18	11	3	13	20	3	13	32	18				8.0	
Bethlehem	Maximum	24	14	-8	16	20	13	25	34	36	14	2	-3	7	16	23	24	26	39	22	34	25	21	31	87	25	43	45	27				22.6	
	Minimum	14	-10	-23	-10	5	1	0	24	14	-4	-10	-22	-21	-6	5	-5	7	10	-6	11	9	-7	4	24	-10	1	25	14				0.8	
Concord	Maximum	25	17	11	25	26	25	31	40	34	16	13	7	18	26	30	35	35	41	29	35	28	27	33	44	24	45	48	34				28.8	
	Minimum	17	-9	-13	9	12	12	2	26	15	4	-6	-5	-6	1	1	7	4	17	11	21	0	0	4	20	8	20	31	20				8.2	
Franklin	Maximum	30	24	6	25	26	25	32	38	35	32	15	9	18	28	33	37	35	38	34	33	31	31	35	44	34	42	44	34				30.3	
	Minimum	19	-4	-15	6	15	7	0	23	28	2	-10	-10	-10	-5	0	-1	5	17	5	20	17	-4	3	31	3	14	33	25				7.6	
Hanover	Maximum	27	19	4	21	23	24	32	38	36	17	10	5	8	26	31	26	33	41	23	-4	19	10	-6	1	26	3	14	27	18				27.3
	Minimum	19	-9	-31	-1	10	7	-8	26	16	0	9	-25	-25	-6	1	-9	-2	13	-4	19	10	-6	1	26	3	14	27	18				3.7	
Nashua	Maximum	29	22	5	20	22	20	26	35	33	17	17	5	15	20	22	27	28	38	24	35	34	22	33	33	25	40	44	33				25.9	
	Minimum	22	-4	-12	5	10	5	9	9	17	-1	0	-11	-12	3	10	3	13	25	2	18	11	3	13	20	3	13	32	18				8.0	
Plymouth	Maximum	20	23	0	21	25	19	30	44	36	33	10	4	12	21	26	32	31	36	25	33	29	25	30	42	36	28	41	32				26.4	
	Minimum	20	-5	-15	-3	13	9	3	19	29	1	-15	-8	-7	-11	-4	-13	6	8	5	17	16	-10	-1	25	4	7	28	18				4.9	
Vermont.																																		
Burlington	Maximum	16	2	12	20	19	16	29	35	14	76	1	-5	8	19	17	19	37	37	17	36	19	23	37	37	17	40	39	26				21.2	
	Minimum	2	-14	-12	6	7	4	6	14	4	-14	-12	-18	-17	5	0	-6	10	4	-1	14	3	-1	7	11	0	17	23	14				2.2	
Enosburg Falls	Maximum	23	7	-8	19	21	30	38	34	87	30	6	1	-2	12	21	22	21	37	40	19	35	19	21	37	38	40	40	25				23.7	
	Minimum	4	-16	-24	-10	0	1	10	8	28	-6	7	-15	-30	-32	0	5	5	10	0	-17	11	3	-11	-4	20	8	23	12				1.0	
Northfield	Maximum	30	2	9	19	18	19	34	36	34	5	-15	-24	-27	-10	21	23	43	44	20	39	21	27	35	39	16	46	49	30				24.9	
	Minimum	2	-14	-48	7	5	-5	-9	3	3	5	-15	-24	-27	-10	21	23	43	44	20	39	21	27	35	39	16	46	49	30				1.4	
St. Johnsbury	Maximum	27	26	3	23	22	18	27	37	38	34	10	6	5	23	27	33	30	35	26	33	32	27	30	40	37	39	41	32				26.6	
	Minimum	18	-10	-18	-9	9	3	-13	24	26	-1	-17	-30	-35	-1	-15	3	19	12	-14	12	-14	-4	30	-5	6	30	34	14				0.5	
Wells	Maximum	30	25	5	18	13	20	22	34	30	8	6	5	8	18	20	22	32	34	18	35	30	22	35	35	25	40	40	30				23.8	
	Minimum	18	-9	18	-2	8	2	8	33	6	-6	-6	-18	-18	-10	10	0	8	18	-2	14	10	2	8	25	0	10	30	13				4.5	
Massachusetts.																																		
Amherst	Maximum	32	16	10	28	29	28	31	42	29	12	16	8	22	28	32	32	36	42	30	40	30	25	38	42	28	43	46	33				29.6	
	Minimum	16	2	-2	7	12	12	25	12	2	-8	-10	-11	7	2	7	11	23	13	26	13	7	5	23	11	26	30	22					10.3	
Blue Hill	Maximum	33	23	9	22	31	25	30	41	36	32	15	2	20	26	28	33	35	44	29	35	33	23	35	43	31	48	48	36				30.6	
	Minimum	19	4</																															







## Daily Precipitation for February, 1917—Continued from page 13.

		Day of month.																															Total.
Stations.	Watersheds.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
<i>Rhode Island.</i>																																	
Block Island ***	Coast	.28			T.	.24				.64					T.	.06						.06		.28	.22	.62		.24	.06	T.			2.70
Bristol	do	.35				.29				.58					T.			T.				.13		.09	*	.41		.47					2.30
Greene	do	.50				.35				.41															.50		.44						2.20
Hope Valley	do		.15				.50			.30				.50		.05						.03		.30		.68		T.	.72				2.70
Kingston	do	.32				.45				.65					.02	T.	.05					.21		.20	.21	.60		.22	.45				3.30
Narrag'sett Pier***	do	.40			T.	.35		T.		.75					T.			.10				.21		.25	.01	.85		.02	1.16				4.10
Pawtucket	do	.51				.48				.45					T.							.16		.13	*	.26		*	.20				2.10
Providence**	do	.27			T.	.44		T.		.46					T.							.08	.13	.13	.10	.15		.21	T.				1.90
Wallum Lake	do	.75				.70			.20																			.20					2.00
<i>Connecticut.</i>																																	
Bridgeport	Coast	.36				.40				.50					.02	.01	.02					.19		.13	.15	.46		T.	.11	.01			2.30
Canton	Connecticut	.33				.71				.45												.14		.28	.37		.47						2.70
Colechester	Coast	.24				.06		T.		.38						.08						.15		.20		.37		.08	.14				2.60
Cream Hill	Housatonic.	.15				.10				.40														.15		.15		.15	.60				2.70
Danielson	Coast	T.								.10														.30		.75		.50					2.50
East Hartland	do	.58				.21				.48												.12		.18				.57					4.70
Falls Village	Housatonic				.17	.77			.08												.25			.22	.05			1.03					2.20
Hartford **	Connecticut	.55			.03	.69		T.		.14												.03	.09		.21	.12	.11		.23				2.20
Hawleyville	Housatonic																																3.60
Lake Konomocit	Coast	.32					.72			.55												.20		.78	1.05			.14	.01	.01			2.20
New Haven***	do	.17		.10		.30		T.		.51						.01	.01	.02				.03	.15	.23	.28	.19		.07	.14				2.20
New London	do	.30				.25				.40									.04			.25	.07		.09			.33	.54				3.30
N. Grosvenor Dale	do	.68				.99				.49						.02		.03	.04		*	.10		.24	*	.40		*	.10	.04			1.10
Norwalk	do	.14				.22				.42													.05		.15		.10		.05	.05			1.60
Southington	do	.40	T.			.60				.20												.14		.13	.26		1.07	.33					3.30
Storrs	Coast	.75				.61				T.												.39		.17	.04	.45		*	.62				3.30
Torrington	Housatonic	.37		T.		.39	.37			*	.38											.13		.10		.43		*	.43				2.20
Voluntown	Coast	.25				.35																					*	*					2.20
Waterbury	Housatonic	.47				.63				.37				T.								.11		.21		.36		*	.20				

## Special River Rainfall Stations.

<i>Maine.</i>																																	
Brownville	Saco																																
Mattawamkeag	Penobscot																																
West Enfield	do																																
<i>New Hampshire.</i>																																	
Franklin Junction	Merrimack																																
Lancaster	Connecticut																																
Manchester	Merrimack																																
Sewall's Falls #1	do																																
West Stewartstown	Connecticut	.42					.07			.27																							
<i>Vermont.</i>																																	
Bellow's Falls	Connecticut																																
Wells River	do																																
White River Junction	do	.08	.17		.02	.13	.25			.37													.25		T.	.02			.46				1.1
<i>Massachusetts.</i>																																	
Holyoke	Connecticut																																

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations.

T. Precipitation is less than 0.01 inch rain or melted snow. \* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight. \* Precipitation indicated in that of following day.

† Post-office addresses of these stations are as follows: Largo, N. H., Redington, Me.; Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.; Moss Brook, Wendell Depot, Mass.; Priest Brook, Winchendon, Mass.; Sewall's Falls, Concord, N. H.

## Comparative Data for New England for February.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.								
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888....	23.9	60	-30	3.75	10	11.9	9	12	8	....	nw.	9.9	58	e.	1903....	25.7	63	-37	4.03	2.05	9	17.6	12	6	10	60	nw.	12.0	69	s.	
1889....	22.6	58	-44	2.32	19	16.7	9	9	10	....	nw.	11.1	50	w.	1904....	15.6	59	-43	2.39	2.23	9	12.4	13	6	10	58	nw.	12.8	78	n.	
1890....	22.0	58	-44	2.32	19	16.7	9	9	10	....	nw.	12.1	60	nw.	1905....	17.1	54	-32	1.53	1.70	6	11.8	14	6	8	63	nw.	13.3	68	n.	
1891....	30.3	70	-20	3.59	12	7.9	8	12	....	....	nw.	12.8	55	e.	1906....	24.5	63	-36	2.53	2.07	6	11.7	14	6	8	58	nw.	11.6	60	n.	
1892....	28.2	63	-28	4.61	15	11.5	10	11	....	....	nw.	12.3	61	ne.	1907....	15.9	55	-37	2.08	1.85	9	21.9	12	8	8	55	nw.	11.9	70	s.	
1893....	25.9	51	-26	2.09	8	14.8	9	7	13	....	nw.	13.3	60	nw.	1908....	20.7	60	-38	4.31	2.31	9	20.9	13	7	9	55	nw.	11.5	84	n.	
1894....	21.7	59	-32	4.05	13	39.1	9	11	56	....	nw.	13.0	73	e.	1909....	26.4	61	-30	5.24	2.64	9	7.9	11	7	10	45	nw.	12.8	90	s.	
1895....	25.1	59	-42	3.05	9	24.6	9	11	56	....	nw.	12.7	66	w.	1910....	23.4	60	-31	4.03	2.26	9	18.6	11	6	11	47	nw.	11.8	55	se.	
1896....	19.1	32	-27	1.05	5	11.1	12	12	62	....	nw.	12.5	58	se.	1911....	21.2	58	-32	2.54	2.20	9	18.6	11	6	11	40	nw.	11.0	60	w.	
1897....	22.6	57	-37	5.08	1.12	16.9	10	11	15	....	nw.	11.6	70	ne.	1912....	21.8	58	-34	2.51	2.72	5	7.8	16	7	6	61	nw.	10.9	72	sw.	
1898....	25.1	54	-27	2.47	2.20	7	14.3	12	38	....	nw.	11.3	76	ne.	1913....	21.9	61	-30	2.65	2.42	8	10.4	16	5	7	62	nw.	11.0	60	w.	
1899....	27.1	60	-38	5.20	4.90	10	22.6	9	6	13	....	n.	73	n.	1914....	16.8	58	-36	2.48	2.83	10	8.3	10	6	12	49	nw.	11.5	59	n.	
1900....	23.1	60	-31	3.74	4.14	11	27.0	11	7	10	....	nw.	14.2	78	w.	1915....	28.2	64	-32	4.14	2.64	13	22.4	10	6	13	43	nw.	12.5	72	n.
1901....	24.3	68	-30	7.13	3.84	10	16.1	10	6	65	....	nw.	15.2	61	nw.	1916....	20.3	59	-34	4.17	3.04	13	22.4	10	6	13	43	nw.	12.5	72	n.
1902....	18.9	49	-23	0.96	1.90	4	9.7	15	7	9	....	nw.	14.8	72	ne.	1917....	18.6	54	-39	2.19	1.50	8	12.8	12	7	7	53	nw.	12.7	72	n.
1903....	23.8	65	-23	3.77	2.37	8	18.9	13	6	9	....	nw.	14.8	72	ne.																



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U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

MARCH, 1917

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BY  
JOHN W. SMITH  
METEOROLOGIST

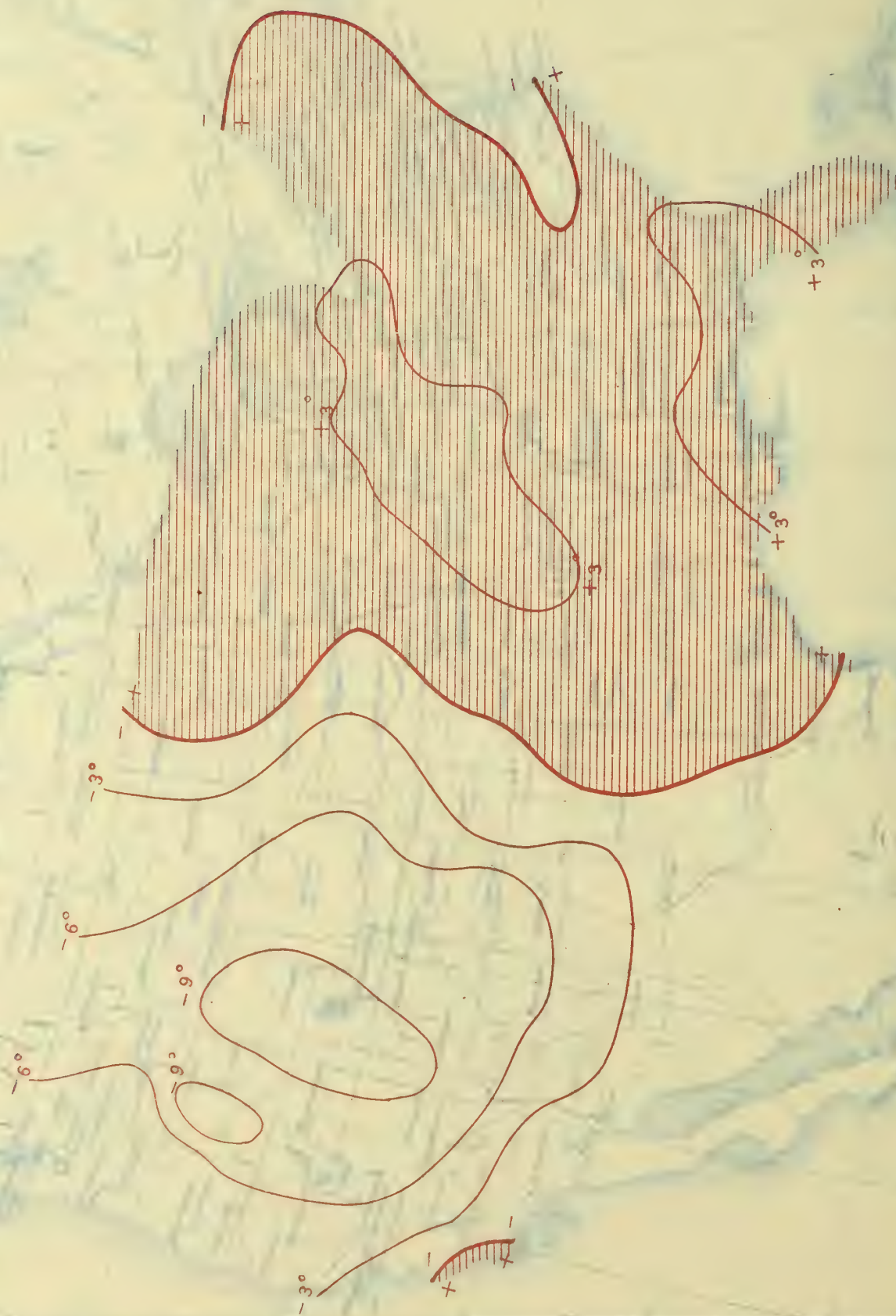
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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
APRIL 18, 1917



Departure of the Mean Temperature from the Normal, March, 1917.



Shaded portions show excess (+).  
Unshaded portions show deficiency (-).  
Lines show amount of excess or deficiency.



## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

VOL. XXIX.

BOSTON, MASS., MARCH, 1917.

No. 3.

## GENERAL SUMMARY.

The temperature during the first decade was somewhat below the normal, and somewhat above during the remainder of the month. Minimum temperatures near or slightly below zero occurred at scattered stations in the northern States as late as the 20th. The precipitation was considerably less in New Hampshire and Vermont than in the remainder of the section. The only heavy snowfall was on the 5-6th, when from 6 to 15 inches fell, the larger amount occurring in eastern Massachusetts and Rhode Island. There was from 3 to 5 feet of snow on the ground in the northern wooded sections at the beginning of the month, but as it melted gradually no floods occurred and at the end of the month only about 12 inches remained. In the open and in the southern States the ground was generally bare after the middle of the month.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 14 stations reporting, was 30.04 inches, which was .06 inch above the normal for the month, and .15 inch above the mean for March, 1916. The highest monthly mean was 30.07 inches, at Fall River, Mass. and New Haven, Conn.; the lowest, 29.99 inches, at Eastport, Me. The highest recorded was 30.59 inches, at New Haven, Conn. on the 7th; the lowest, 29.29 inches, at Eastport, Me. on the 18th. The range for the section was 1.30 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 5 stations, was 31.3°, which was 6.2° above the mean for March, 1916. During the past 29 years the average March temperature has been higher in 15 years and lower in 14 years than that of the present month. The highest average March temperature during this time was 40.8°, in 1888; the lowest, 17.7°, in 1906. The average temperature for the several States of the section was as follows: Maine, 27.5°; New Hampshire, 29.5°; Vermont, 27.3°; Massachusetts, 34.5°; Rhode Island, 34.2°; Connecticut, 34.8°. The average temperature for the section was 0.8° above the normal. The departures from the normal for the several States were as follows: Maine, +0.6°; New Hampshire, +0.5°; Vermont, +1.1°; Massachusetts, -1.3°; Rhode Island, -0.8°; Connecticut, +0.8°. The highest monthly mean was 38.7°, at Westboro, Mass.; the lowest, 18.7°, at Patten, Me. The highest recorded was 65°, at Patten, Me. on the 12th; the lowest, -18°, at Van Buren, Me. on the 7th, and Boomfield, Vt. on the 20th. The greatest local monthly range was 73°, at Bloomfield, Vt.; the least, 27°, at Nantucket, Mass. The greatest daily range was 55°, at Bloomfield, Vt. on the 7th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 13 stations reporting, was 73 per cent, which was the same as that of March, 1916, and 1 per cent below the normal for the month. The highest monthly average was 82 per cent, at Nantucket, Mass.; the lowest, 67 per cent, at Portland, Me.

## PRECIPITATION.

The average for the section, as determined from the records of 5 stations, was 3.71 inches, which was 0.86 inch above the average for March, 1916. During the past 29 years the average

March precipitation has been greater in 12 years and less in 17 years than that of the present month. The greatest March precipitation during this time was 6.43 inches, in 1899; the least, 0.21 inch, in 1915. The average for the several States was as follows: Maine, 3.67 inches; New Hampshire, 2.90; Vermont, 2.42; Massachusetts, 4.07; Rhode Island, 5.16; Connecticut, 4.59. The average for the section was 0.01 inch below the normal for the month. The departures from the normal for the several States were as follows: Maine, -0.01 inch; New Hampshire, -0.43; Vermont, -0.40; Massachusetts, +0.14; Rhode Island, +0.64; Connecticut, +0.26. The greatest monthly amount was 6.22 inches, at Kingston, R. I.; the least, 1.13 inches, at Enosburg Falls, Vt. The greatest amount in 24 hours was 2.13 inches, at Millinocket, Me. on the 27th. The average snowfall for the section was 15.9 inches, which was 14.4 inches below the average for March, 1916, and 4.3 inches above the normal for the month as determined from the records of the past 30 years. The greatest average snowfall in any March during this time was 30.3 inches, in 1916; the least, 1.6 inches, in 1913. The average snowfall in the several States was as follows: Maine, 18.2 inches; New Hampshire, 18.2; Vermont, 18.4; Massachusetts, 14.3; Rhode Island, 12.7; Connecticut, 11.6. The average number of days with .01 inch or more of precipitation was 12, 1 more than the average for March, 1916, and 3 more than the normal number for the month.

## WIND.

The prevailing direction of the wind was from the northwest, which is the normal direction for the month, as determined from the records of the past 30 years. The greatest monthly wind movement at any station was 17,006 miles at Blue Hill Observatory, Hyde Park, Mass.; the least, 5,169 miles, at Concord, N. H. The average hourly velocity was 13.1 miles, which was 1.0 mile above the average for March, 1916, and 1.1 miles above the normal for the month. The highest recorded velocity was 69 miles per hour from the southeast, at Portland, Me. on the 28th. This is about the usual maximum velocity for the month.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 13; partly cloudy, 7; cloudy, 11. The normal for the month, as determined from the records of the past 30 years, is 12 clear, 8 partly cloudy, and 11 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 55, which was 4 per cent above the average for March, 1916, and 1 per cent above the normal for the month, as determined from the records of the past 25 years. The greatest percentage of possible sunshine at any station was 63, at Amherst, Mass.; the least, 45, at Hartford, Conn. The greatest percentage of possible sunshine in any March since the beginning of the automatic records in 1892, was 74, in 1915; the least, 36, in 1899.

## DATES OF MISCELLANEOUS PHENOMENA.

*Auroras*.—Blue Hill, Mass., 15.

*Thunderstorms*.—Nantucket, Mass., 12.

*Halos, Lunar*.—Eastport, Me., 1, 2, 4; Winslow, Me., 10; Bethlehem, N. H. and Northfield, Vt., 2; Enosburg Falls and Woodstock, Vt., 3; Blue Hill, Mass., 1, 7; Boston, Mass., 1, 7, 10; Concord and Hingham, Mass., 1; Nantucket and Somerset, Mass., 7; Block Island, R. I. and Hartford, Conn., 1, 31.

*Halos, Solar*.—Cornish, Me., 1; Eastport, Me., 3, 20; North Bridgton, Me., Bethlehem, N. H. and Hingham, Mass., 2; Grafton, N. H., 1, 2; Enosburg Falls, Vt., 3; Northfield, Vt., 1, 2, 21; Woodstock, Vt., 1, 2, 31; Blue Hill, Mass., 7, 20; Boston, Mass., 2, 7, 14, 20, 23, 27; Nantucket, Mass., 20; Somerset, Mass., 23; New Haven, Conn., 7, 13; Southington, Conn., 13.



## Climatological Data for March, 1917.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				No. of days.			Prevailing direction of wind.	Observer.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation or more.	Clear.			Partly Cloudy.	Cloudy.
Maine.																				
Bar Harbor	Hancock	20	31	32.2	+1.0	52	25	5	6	27	4.96	-0.82	1.05	10.0	8	22	5	4	nw.	Mount Desert Nurseries.
Cornish	York	778	62	32.2	+2.9	60	26	-9	7	52	4.26	0.00	1.10	24.5	9	13	7	11	w.	T. H. West.
Eastport	Washington	53	45	29.4	+0.5	46	28	5	7	25	2.95	-1.33	0.90	14.9	12	9	10	12	w.	U. S. Weather Bureau.
Farmington	Franklin	450	20	27.5	-2.7	53	31	-5	7	43	4.21	-0.14	1.52	18.0	12	10	10	11	nw.	State Normal School.
Gardiner	Kennebec	163	25	30.3	0.0	52	31	-10	7	49	4.79	+0.73	1.42	20.5	13	16	3	12	sw.	Samuel D. Soule.
Greenville	Piscataquis	1,140	13	25.0		52	26	-5	3	42	3.90	+0.14	1.94	17.3	11	13	6	12	n.	U. S. Weather Bureau.
Houlton	Aroostook	362	15	26.3		54	26	-10	3	47	2.14	-0.21	0.60	17.0	9	13	10	8	w.	Bangor & Aroostook RR.
Langtown	Franklin	1,500	1	25.0		59	26	-10	20	47	2.44		0.72	18.8	13	10	10	11	n.	Langtown Co.
Lewiston	Androscoggin	185	34	28.6	-0.2	50	31	-8	7	45	4.44	-0.15	1.41	26.2	13	10	14	7	nw.	Union Water Power Co.
Madison	Somerset	257	14	26.4		53	27	-8	20	40	3.95	-0.35	1.59	15.5	11	17	6	8	sw.	William Jardine.
Millinocket	Penobscot	386	14	26.6		52	26	-11	2	43	4.41	+0.78	2.13	20.8	11	20	1	10	w.	Great Northern Paper Co.
North Bridgton	Cumberland	450	24	29.4	+0.5	54	31	-2	7	39	3.81	-0.45	1.16	26.0	12	11	11	9	n.	C. L. Chadbourn.
Orono	Penobscot	129	48	30.2	+2.6	65	12	3	7	42	3.22	-0.83	0.75	13.0	10	20	2	6	sw.	Maine State College.
Patten	do	550	15	18.7		50	27	-15	19	52	3.60	+0.98	1.00	20.0	5	48	2	17	nw.	Bangor & Aroostook RR.
Portland	Cumberland	99	46	32.1	+0.1	53	31	8	20	43	4.53	+0.78	1.47	15.5	14	15	5	11	nw.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	8	22.0		53	27	-15	2	48	2.70	+0.47	0.90	16.0	6	21	3	7	w.	E. M. Libby.
Rumford	Oxford	505	24	28.6	+1.1	51	26	3	1	31	3.85	-0.27	1.63	19.5	10	20	2	9	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	13	21.8		51	26	-18	7	52	2.93	+0.31	1.25	19.5	10	14	4	13	nw.	Rev. J. M. Thomas.
Winslow	Kennebec	90	22	31.0	+1.1	58	23	-5	7	42	3.44	-0.42	1.25	12.5	9	16	9	6	w.	Hollingsworth & Whitney.
New Hampshire.																				
Alstead Center	Cheshire	1,120	13	30.2	+0.9	52	26	-4	20	29	2.67	-0.83	0.69	27.0	13	15	7	9	sw.	Frank Dewing.
Bethlehem	Grafton	1,470	25	26.3	-0.2	56	26	-5	20	35	2.66	-0.44	0.94	16.5	9	15	5	11	w.	Benjamin Tucker.
Concord	Merrimac	350	57	31.8	+0.3	59	26	0	7	39	2.03	-1.37	0.78	12.0	13	14	5	12	nw.	U. S. Weather Bureau.
Durham	Stafford	88	22	31.6	+0.1	56	26	1	7	38	2.31	-1.15	0.81	11.0	7	13	9	9	w.	N. H. Agr. College.
Franklin	Merrimac	440	18	31.2	+0.1	59	26	0	7	42	3.16	-0.45	0.78	19.8	12	15	7	9	nw.	Dr. C. P. Webster.
Glencoff	Grafton	1,650	4	25.8		55	26	-2	19	35	5.19	+2.70	1.44	34.1	14	13	6	12	nw.	State Sanatorium.
Grafton	do	863	31	27.0	-0.5	57	26	-7	7	45	1.98	-1.38	0.75	14.0	7	20	2	9	w.	P. R. Kimball.
Hanover	do	603	83	29.6	+2.2	58	26	-6	7	47	2.40	-0.21	0.45	17.2	16	3	16	12	n.	Dartmouth College.
Keenes	Cheshire	506	32	31.8	+1.2	60	26	-5	7	48	2.97	-0.65	0.65	14.0	13	13	8	10	nw.	Samuel Wadsworth.
Nashua	Hillsboro	125	32																	C. B. Stevens.
Newton	Rockingham	126	29	31.6	-0.2	57	26	0	7	39	3.05	-0.76	0.87	15.0	9	10	12	9	nw.	W. C. Gale.
Plymouth	Grafton	500	29	27.8	+0.9	52	26	-3	1	38	3.47	-0.17	1.15	19.8	12	12	3	16	w.	Mrs. Hattie G. Trow.
Vermont.																				
Bloomfield	Essex		10	24.6		55	26	-18	20	55	2.86	+0.14	1.28	25.0	12	15	5	11	s.	Lyman Falls Power Co.
Burlington	Chittenden	404	10	28.5	+1.2	57	26	1	2	33	2.99	+1.16	0.87	20.5	12	10	9	12	s.	U. S. Weather Bureau.
Cavendish	Windor	910	14	28.7		54	26	-12	2	50	2.87	+1.12	0.82	20.0	10	17	6	8	.....	Colonial Power Co.
Chelsea	Orange	840	22	26.8	+1.8	52	26	-13	7	51	2.29	-0.81	0.50	20.0	12	10	10	11	s.	W. F. Dewey.
Cornwall	Addison	517	24	30.4	+1.3	60	26	3	7	32	2.51	+0.43	0.60	13.0	9	13	7	11	s.	C. H. Lane.
Enosburg Falls	Franklin	601	26	27.8	+0.4	59	26	-8	7	49	1.13	-1.83	0.24	21.5	12	14	5	12	nw.	J. W. Pomeroy.
Hyde Park	Lamoille	576	5	26.6		57	26	-14	7	55	2.12		0.60	32.0	15	14	6	11	w.	A. V. Wiswell.
Northfield	Washington	876	31	25.9	-0.3	53	26	-10	7	44	2.19	-0.60	0.71	17.1	13	9	8	14	s.	U. S. Weather Bureau.
Rutland	Rutland	562	1	30.4		63	26	-1	7	33	1.50		0.49	9.6	9	13	5	13	nw.	George H. Ross.
Somerset	Windham	2,096	6	25.4		51	26	-6	6	34	4.70		0.92	23.8	19	11	5	15	sw.	Power Construction Co.
St. Johnsbury	Caledonia	711	24	28.4	+1.9	59	26	-11	7	52	2.13	-0.66	0.66	22.4	11	14	7	10	n.	Fairbanks Museum.
Vernon	Windham	310	2	31.6	+1.1	55	26	-5	7	42	2.63	-0.92	0.94	10.0	10	14	3	14	nw.	Conn. River Power Co.
Wells	Rutland	750	26	27.8	+0.3	55	27	4	19	30	2.22	-1.08	0.63	6.5	7	9	9	13	s.	E. R. Pember.
Woodstock	Windsor	700	25	29.8	+2.1	53	26	-7	7	47	1.79	-1.32	0.49	16.0	9	11	6	14	.....	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	28	33.4	+0.7	58	25	-2	7	43	4.08	+0.21	1.20	17.0	11	16	7	8	nw.	Mass. Agr. College.
Blue Hill	Norfolk	640	33	33.8	+1.5	57	26	14	6	25	5.03	+0.63	1.73	20.5	15	11	7	13	w.	Blue Hill Observatory.
Boston	Suffolk	124	47	37.2	+2.2	61	26	17	5	25	3.73	-0.35	1.45	12.9	13	12	10	9	w.	U. S. Weather Bureau.
Chestnut Hill	do	124	37	36.2	+1.9	60	26	9	7	32	4.81	+0.47	1.07	11.1	15	22	0	9	.....	Met. Water Board.
Clinton	Worcester	370	21	33.6		57	26	3	7	39	4.93	+1.32	2.04	12.1	12	.....	.....	.....	Do.	
Concord	Middlesex	139	27	33.7	+0.5	59	27	2	7	38	3.56	-0.11	1.09	12.7	15	10	9	12	nw.	Fred A. Tower.
Fall River	Bristol	200	51	35.8	-0.2	55	27	17	20	23	5.04	+0.29	1.25	16.0	12	8	15	8	nw.	C. V. S. Remington.
Fitchburg	Worcester	550	34	33.3	+1.5	59	26	12	20	30	2.73	-1.12	0.67	12.5	12	16	5	10	w.	Dr. A. P. Mason.
Framingham	Middlesex	160	37	35.4	+1.2	57	26	7	7	32	5.20	+0.77	2.04	14.0	13	.....	.....	.....	Met. Water Board.	
Lawrence	Essex	51	33	33.6	+1.0	58	26	1	7	38	4.26	+0.30	1.33	14.5	12	10	13	8	w.	Essex Company.
Lowell	Middlesex	100	32	34.2	+1.7	58	26	-1	7	41	4.42	+0.26	1.82	.....	11	.....	.....	.....	Props. Locks & Canals.	
Nantucket	Nantucket	47	31	35.2	-1.6	48	31	21	20	19	5.85	+1.87	2.01	13.6	14	13	6	12	nw.	U. S. Weather Bureau.
New Bedford	Bristol	88	105																City Engineer.	
Plymouth	Plymouth	50	32	33.6		57	28	14	6	25	5.41	+0.74	1.10	24.0	11	14	6	11	nw.	Miss L. B. Knapp.
Provincetown	Barnstable	40	30	35.6	0.0	51	24	18	6	18	4.11	+0.18	0.80	14.0	11	19	6	6	sw.	Gideon Bowley.
Rockport	Essex	25	15	34.3		53	31	14	6	22	2.36		0.61	15.2	11	15	7	9	nw.	U. S. C. G. Station.
Rutland	Worcester	1,160	15	31.3		55	26	8	19	26	4.59		1.23	11.3	15	12	8	11	w.	State Sanatorium.
Springfield	Hampden	199	7	36.0	+2.9	59	26	9	7	31	3.57	-0.16	0.85	15.3	15	9	8	14	nw.	U. S. Army.
Turners Falls	Franklin	200	31	33.9	+0.3	59	26	6	7	32	2.98	-0.36	0.79	.....	11	11	10	10	nw.	Turners Falls Co.
Westboro	Worcester	298	43	38.7	+4.7	60	25	10	7	32	2.18	-2.06	0.95	11.5	9	.....	.....	.....	Miss E. W. Newcomb.	
Williamstown	Berkshire	711	36	31.6	+2.6	56	26	6	7	33	2.54	-0.54	0.50	8.5	13	9	6	16	nw.	Williams College.
Worcester	Worcester	518	25	34.6	+0.4	61	25	12	7	25	4.18	+0.27	0.81	14.4	12	11	10	10	sw.	G. W. Swan.
Rhode Island.																				
Block Island	Newport	26	37	35.9	0.0	49	27	21	19	23	4.85	+0.48	0.93	9.5	14	11	5	15	nw.	U. S. Weather Bureau.
Bristol	Bristol	53	31	36.3	+1.3	52	24	18	7	21	4.76	+0.63	2.02	14.5	11	16	10	5	s.	N. G. Herreshoff.
Kings	Washington	250	28	30.3	-4.0	50	24	8	7	28	6.22	+0.76	1.46	14.5	10	12	7	12	w.	Nathaniel Helme.
Narragansett Pier	Newport	22	35	32.5	-1.9	48	29	14	7	20	5.33	+1.25	1.05	15.5	14	13	6	12	nw.	U. S. Weather Bureau.
Providence	Providence	182	13	36.0	+0.8	55	31	16	20	27	4.14	+0.06	1.04	9.6	13	9	12	10	nw.	Do.
Connecticut.																				
Bridgeport	Fairfield	20	24	37.2		59	24	13	7	32	6.49	+1.77	1.74	13.1	14	13	8	10	nw.	William Jennings.
Canton	Hartford	900	56	34.1	+2.6	57	24	4	7	37	2.92	-1.38	1.22	11.0	8	9	10	12	nw.	G. J. Case.
Colechester	New London	370	31	34.4	-0.1	55	25	7	7	33	5.82	+1.21	1.84	14.0	13	9	9	13	w.	S. P. Willard.
Cream Hill	Litchfield	1,300	21	31.7	-2.1	55	27	9	19	32	3.47	-0.44	0.62	17.8	10	12	5	14	nw.	C. L. Gold.
Danielson																				

The departures from normal temperature and precipitation are computed only for such stations as have ten or more years of record, but all complete reports are used in determining section or State means. Reference letters, <sup>a</sup>, <sup>b</sup>, <sup>c</sup>, appearing in the table indicate number of days missing; for example, <sup>b</sup> represents two days, etc.

<sup>1</sup> Also on other dates. <sup>\*Received too late to be included in means and summaries.</sup> <sup>\*\* Temperature data are from observed readings of the dry bulb; means are computed from observed readings.</sup> <sup>T. Precipitation is less than 0.01 inch rain or melted snow.</sup> <sup>§ Thermometers not supplied by Weather Bureau.</sup>

† Post-office addresses of these stations are as follows: Cornwall, Middlebury, Vt.; Blue Hill, Hyde Park, Mass.; Cream Hill, W. Cornwall, Conn.; Canton, Collinsville, Conn.



## Daily Precipitation for March, 1917.

Stations.	Watersheds.	Day of month.																															Total		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Maine.																																			
Ashland	St. John					.27			.04	.04						.06		.03	.19			.10			.17								1.75		
Bar Harbor	Coast				.70	.30			.87							.18			.65						.16				.85				4.96		
Cambridge	Kennebec																																		
Cornish	Saco		T.	.70			.45			.50				.05	.20		.66				T.				.50				1.10		.10			4.26	
Danforth	Penobscot			.25	.40		.20	.20							.04	T.	.43								.50								3.19		
Eastport***	Coast			.78	.12		.70	T.						.01	.05		.12	T.	.06	.09					.48				.77	.21			2.95		
Eustis	Kennebec			.15	.40		.07	.02	T.					.01	.25	T.		.36	T.				.15		.48				.13	.29			2.95		
Farmington	do			.35	.15		.12	.22		.01					.35		.20	.52						.07					.66	.03	T.	T.	2.17		
Gardiner	do			.55	.28		.45	.05		.08	.07				.29	.03	.33	.57						.32	.32				T.	1.52	.13			4.79	
Greenville**	do			.15	.25		.08	.20			T.				.35		.20	.30			T.				.28					1.42	.17			4.79	
Houlton	St. John			.15	.25		.08	.20			T.				.35		.20	.30			T.				.28					1.42	.17			4.79	
Howe Brook	Penobscot			.10	.30		.60	.10							.05		.60								.35				.04	1.96	.15	T.		3.90	
Lewiston	Kennebec	T.		.10	.17		.02	.02		T.	T.				.26		.12	.37	T.		.04	.04			.40	.50				.16				3.46	
Lewiston	Androscoggin			.50	.10		.52			.15	.18			.01	.24		.80	.08							.22					.72	.04	.02		2.14	
Madison	Kennebec			.08	.25		.49			.19	.15				.19	.15		.57							.34					.31	1.10	.11		4.44	
Millinocket	Penobscot			.34			.33			.01					.01	.10		.94	.14		.06				.35	.17			1.59	.03	.18			3.55	
North Bridgton	Saco			.50			.35	.05		.12	.32				.24		.33	.36			T.				.11	.23			2.15		.10			4.41	
Orono	Penobscot			.50			.35	.05		.12	.32				.24		.33	.36			T.				.23					1.22	.14	.15		3.81	
Patten	do			.80			.50	.30		.41					.15	.15		.30							.23					1.22	.14	.15		3.81	
Portland***	Coast			.01	1.47		.46			.29	.15			.60	.01	.19		.70		.80					.49				1.06					3.20	
Presque Isle	St. John			T.	.80		.20	.20									.40	T.			.01			T.	.26				.83	.07	.14		.04	4.53	
Rumford	Androscoggin			.32			.31			.16	.02			.05	.15		.58	T.							.20					.90	T.	T.		2.70	
Van Buren	St. John	12			.66		.12	.29						.09			T.	.70			T.				.13				1.30	.33	T.	T.		3.36	
Winslow	Kennebec			.31			.30	.09									.15								.62				1.25	.03	T.			2.93	
New Hampshire.																																			
Alstead Center	Connecticut		T.	.05	.41	.04			.24		.30				.26	.03		.25	.03		T.				.23					.07	.69	.07		2.67	
Bethlehem	do			T.	.10	.15		.20	T.		.15	.40			.26	.03		.25	.15	T.					.22					.94	T.			2.66	
Brookline	Merrimack			.10	.30		.01		.64		.32	T.			.03	.02		.62								.22				.81	T.	.05			3.68
Concord***	do			.03	.40		.14		.32	T.					.03	.02		.21	.03						.02	.03				.70	.18	.02			2.03
Durham	do						.37			.30								.21	.03															2.31	
Franklin	do			.02	.59	.10	.28			.28	.22			T.	.15		.26	.15			T.				.13									3.16	
Glenciff	do		T.		.60		.28			.62							.26	.15																3.16	
Granton	do				.27		.23			.27	.07			T.	.29		1.00	T.	.02	.02					.33						.10	.68	T.	T.	5.19
Hannover	Connecticut			.01	.33	.06	.30	T.		.24	.21			T.	.06		.31								.08					.75				1.98	
Kenne	do			.12	.56		.30			.30	.32			.02	.07		.34	.03							.10					.21	.35	.02	.62	T.	2.49
Nashua	Merrimack						.30			.30	.32			.02	.07		.34	.03							.16					.08	.65	.02		2.57	
Newton	do			.05	.57		.32			.60				T.	.02		.30				T.									.87	T.	.03		3.65	
Plymouth	do			.18	.07		.44	T.		.15	.35			.07	.15		.30	.14			T.				.40					T.	1.15	.03		3.47	
Vermont.																																			
Bloomfield	Connecticut				.14		.10	.17		.12	.45				.25	.05	.12		.01	.06					.11					1.28				2.86	
Burlington**	Champlain			.87			.16	T.		.60					.07	.03		.47	T.											.47	.11	T.	.25	2.59	
Cavendish	Connecticut		T.	.82	.08		.21			.33	T.				.18	.03		.47	T.												.47	.11	T.		2.87
Chelsea	do			.45			.12	.02		.18	.22				.16	.12		.45																2.57	
Cornwall	Champlain		.08	.54	.10		.12			.30	.32				T.	.10		.40													.50	.04		.15	2.29
Enosburg Falls	do			.08	.04		.04	.15		.20	.24				T.	.10		.40													.40			2.51	
Hyde Park	do			.18	.09		.09	.16		.23	.27				.18			.40													.40			2.51	
Northfield**	Champlain		T.	T.	.45	T.	.09	T.	T.	.42	.10			.02	.02		.19			.05	.01				.04					.60	.03	T.		2.12	
Rutland	do			.14	T.		.19	.03		.02	.49				.05	.02		.19							.04						.60	.03	T.		2.12
Somerset	Connecticut			.06	.63	.22	.40	.07	.03	.28	.55				.28	.08		.36	T.						.20						.69	.02	.02	.10	2.19
St. Johnsbury	do			.06	.63	.22	.40	.07	.03	.28	.55				.28	.08		.36	T.						.20						.69	.02	.02	.10	2.19
Vernon	do			.25	.02	.14	.22			.22	.25				.14			.45			.03	T.									.94				2.13
Wells	Champlain		T.	.25	.02	.14	.22			.22	.25				.14			.45			.03	T.									.94				2.13
Woodstock	Connecticut			.49	.08		.24			.47					T.	.08		.30	.04							.02					.63		.07	T.	1.79
Massachusetts.																																			
Amherst	Connecticut		T.	T.	1.05		.42			.28	.04			.24	.05		.67	T.												1.20	.03			4.08	
Ashland	Merrimack		.07		.2.13		.40			.46					.08		.26									.10				.95		.10		.07	4.76
Bakers Bridge	do			.17	.24	.95	T.			.36	.14	.03			.15	.08		.29								.16					.75				2.88
Bedford	Coast			.17	.35	1.73	.05			.33	.28	.24			.03	.03		.37	.03						.15				.32	.49				3.29	
Blue Hill	do			.0																															



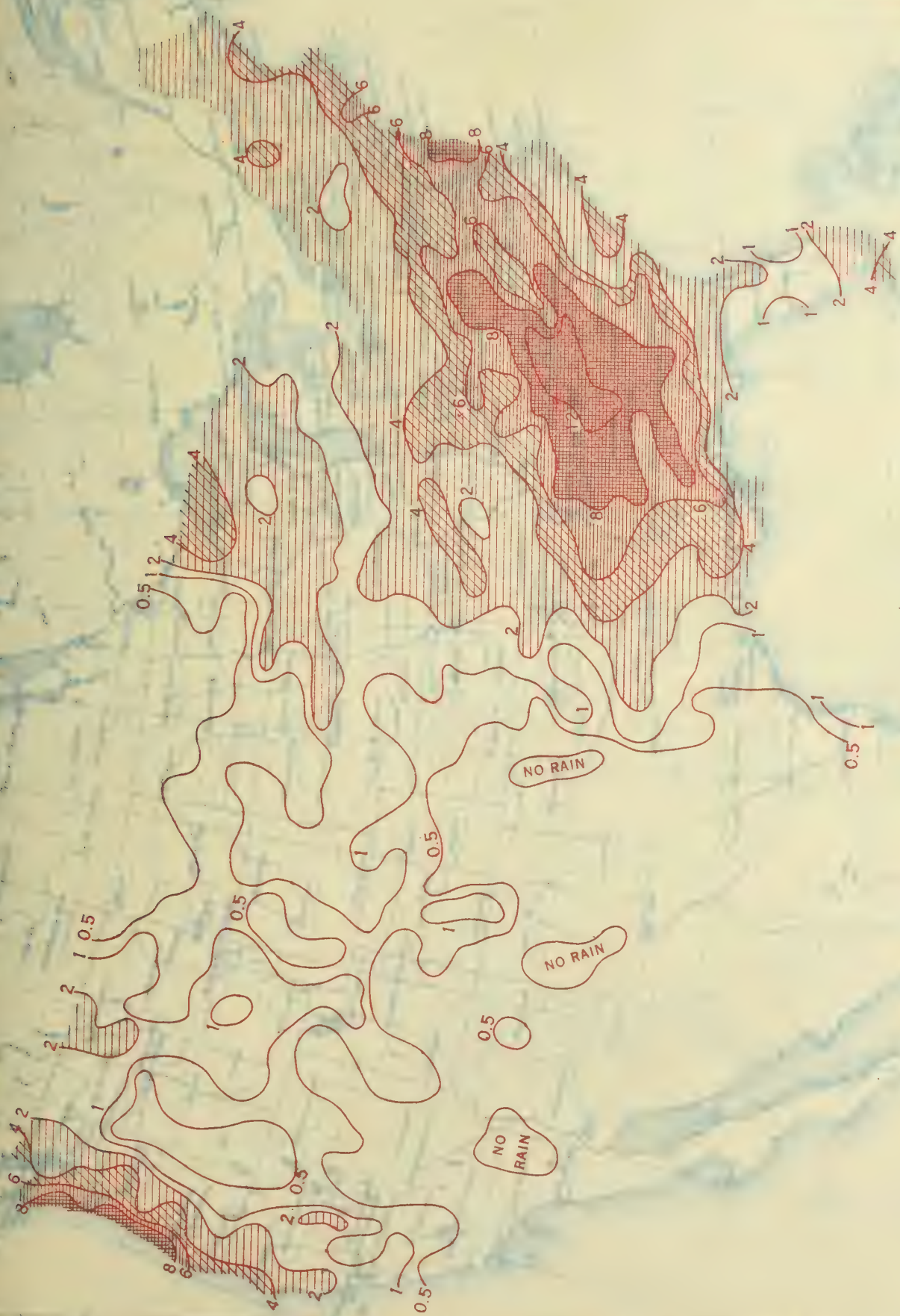
## Daily Temperatures for March, 1917.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean			
Maine.																																			
Bar Harbor	Maximum	34	33	34	37	33	29	40	41	43	40	44	44	43	43	35	40	38	43	38	33	43	43	49	43	52	47	43	46	44	44	51	41.0		
	Minimum	14	13	22	28	12	5	13	22	31	23	23	27	23	28	30	28	30	22	12	8	22	20	19	34	31	35	31	35	33	27	28	23.5		
Cornish	Maximum	38	40	42	43	30	39	43	38	48	48	36	52	50	51	45	52	43	47	31	34	52	46	55	53	57	60	49	49	52	47	58	46.1		
	Minimum	5	1	20	25	10	3	9	21	23	22	18	27	16	18	32	26	20	24	10	3	10	23	11	24	20	22	26	33	28	25	24	18.2		
Eastport	Maximum	32	34	31	30	22	23	37	38	39	35	35	39	41	40	34	36	37	38	22	28	33	32	38	41	40	44	42	46	39	39	45	35.8		
	Minimum	18	18	23	20	12	7	12	25	35	24	21	23	22	32	30	41	42	37	42	36	38	24	27	40	44	45	48	50	45	48	41	53	38.8	
Farmington	Maximum	30	35	32	34	27	24	36	34	39	37	32	39	41	40	34	36	37	38	22	28	33	32	38	41	40	44	45	48	50	45	48	41	53	38.8
	Minimum	2	0	4	21	8	1	5	13	25	23	16	28	19	20	30	22	28	24	5	6	10	21	8	28	18	29	25	35	27	23	19	16.7		
Greenville	Maximum	28	32	37	28	18	20	40	30	36	33	36	32	32	40	42	38	39	35	23	30	36	38	45	40	47	52	46	40	41	32	42	34.9		
	Minimum	4	4	5	15	6	1	0	20	27	16	13	15	13	15	26	27	27	16	2	1	13	9	7	32	20	24	28	29	25	25	22	15.2		
Millinocket	Maximum	30	32	36	32	20	25	40	33	38	36	34	40	40	42	38	39	35	23	30	36	38	45	44	46	52	50	44	41	38	46	40	41.2		
	Minimum	6	11	7	17	6	4	5	18	20	15	10	17	23	28	28	29	23	5	2	17	9	2	32	19	27	26	33	25	27	21	15.6			
Orono	Maximum	23	34	40	41	28	29	37	38	39	41	38	65	43	46	47	41	40	34	29	28	40	41	45	45	48	46	50	47	46	44	50	41.2		
	Minimum	4	5	11	24	9	5	3	23	30	24	16	25	18	25	31	30	31	24	6	6	21	15	12	34	25	24	28	5	28	27	25	19.2		
Portland	Maximum	35	37	35	37	29	28	32	36	44	40	30	39	40	38	44	38	40	22	30	43	37	43	52	47	45	45	46	50	47	46	44	50	41.2	
	Minimum	20	20	26	29	8	10	12	27	33	28	25	27	22	30	32	31	31	22	9	8	20	23	24	36	31	32	34	34	32	30	25.0			
Presque Isle	Maximum	28	28	28	17	18	28	34	36	32	33	36	35	39	40	42	40	39	35	23	18	32	33	44	40	47	49	53	45	48	37	33	34.7		
	Minimum	2	15	15	0	7	2	10	27	4	18	0	10	12	10	25	23	19	22	2	10	2	8	4	32	17	30	28	34	24	23	11	9.3		
Rumford	Maximum	31	35	35	36	22	25	36	35	40	34	35	34	34	41	38	40	37	35	17	30	39	43	44	46	47	51	46	44	44	36	48	37.5		
	Minimum	3	6	10	24	11	8	5	23	25	26	17	26	21	17	32	30	19	6	7	17	18	16	30	22	24	30	32	31	26	21	19.8			
Van Buren	Maximum	24	26	30	26	15	20	34	33	34	29	30	29	40	45	39	44	38	37	30	25	34	38	43	42	45	51	47	45	37	36	32	34.8		
	Minimum	11	16	17	9	13	2	18	1	24	20	0	5	11	18	25	25	11	25	2	5	9	10	2	32	18	31	30	32	23	18	13	8.9		
New Hampshire.																																			
Alstead Center	Maximum	30	30	33	33	28	23	37	38	37	35	30	33	36	36	34	40	35	34	23	32	38	40	44	45	50	52	46	45	41	40	40	36.9		
	Minimum	17	17	28	27	13	13	8	25	39	27	25	25	15	16	30	25	28	23	5	4	27	32	33	35	28	30	36	31	29	28	28	23.6		
Bethlehem	Maximum	30	28	35	30	22	19	35	37	33	29	29	28	29	40	34	38	36	17	25	35	37	46	45	50	56	47	45	42	34	45	35.2			
	Minimum	10	7	11	20	14	3	0	24	26	17	15	19	14	7	26	18	20	16	1	5	21	12	15	24	22	30	27	29	29	24	26	17.4		
Concord	Maximum	35	35	37	38	26	27	39	37	43	40	31	37	40	40	39	45	36	36	20	35	44	44	51	50	55	59	52	42	48	43	53	40.6		
	Minimum	12	14	26	26	13	13	0	28	31	29	27	25	20	19	30	28	23	20	10	9	16	26	18	37	24	20	34	33	31	29	30	22.9		
Franklin	Maximum	35	36	39	40	30	28	42	34	44	40	33	38	39	40	39	43	35	39	30	32	43	47	51	49	54	59	52	46	48	44	54	41.4		
	Minimum	8	8	24	29	13	11	0	24	26	26	24	37	20	15	31	27	20	28	8	6	11	23	15	35	21	25	31	32	28	24	28	21.0		
Hanover	Maximum	35	33	38	34	25	28	41	35	41	38	30	36	35	39	44	36	35	30	32	43	45	49	48	53	58	48	46	47	43	48	39.7			
	Minimum	6	5	19	24	16	10	6	27	27	25	22	23	17	7	30	26	20	19	5	0	22	20	13	36	20	21	38	32	31	28	23	19.5		
Nashua	Maximum	33	34	36	37	28	23	39	32	40	37	32	32	32	41	38	43	37	35	26	26	39	40	46	45	49	52	44	41	44	40	40	37.7		
	Minimum	3	4	16	28	15	10	2	20	22	25	23	24	24	6	20	20	15	26	6	5	10	21	8	34	17	20	28	32	28	29	24	18.8		
Plymouth	Maximum	33	34	36	37	28	23	39	32	40	37	32	32	32	41	38	43	37	35	26	26	39	40	46	45	49	52	44	41	44	40	40	37.7		
	Minimum	3	4	16	28	15	10	2	20	22	25	23	24	24	6	20	20	15	26	6	5	10	21	8	34	17	20	28	32	28	29	24	18.8		
Vermont.																																			
Burlington	Maximum	32	29	33	28	24	23	34	37	38	33	32	31	27	37	36	39	38	34	15	37	36	46	44	50	57	54	54	39	42	42	46	36.4		
	Minimum	16	15	14	11	8	5	1	28	28	23	23	19	12	10	28	26	27	15	3	4	22	15	24	35	29	40	34	33	33	28	29	20.6		
Enosburg Falls	Maximum	30	32	33	30	25	25	34	40	32	33	33	29	27	45	45	42	42	37	19	6	8	30	36	38	49	46	52	59	58	50	39	38.8		
	Minimum	1	7	2	12	12	9	8	27	30	15	16	15	13	4	25	23	20	19	6	8	24	20	14	37	22	40	40	31	31	27	27	17.8		
Northfield	Maximum	32	33	35	34	22	24	34	35	39	34	31	32	30	37	39	40	35	35	13	33	36	38	45	35	50	53	45	37	42	39	48	36.2		
	Minimum	5	0	8	14	12	2	10	24	29	19	19	22	8	2	28	21	18	13	4	3	22	11	10	27	18	31	36	31	30	26	28	15.7		
St. Johnsbury	Maximum	35	33	39	37	26	27	41	38	40	37	35	36	34	39	41	43	40	36	37	26	42	41	50	47	51	59	55	48	46	39	50	39.9		
	Minimum	1	1	4	23	14	9	11	24	27	21	17	32	17	0	31	25	12	26	2	8	24	13	8	37	17	35	33	32	32	21	19	17.0		
Wells	Maximum	30	23	32	30	22	30	32	36	35	35	34	30	26	34	35																			



Scale of Shading

[Diagonal lines \]	0 to 2 inches.
[Diagonal lines /]	2 to 4 inches.
[Cross-hatch]	4 to 6 inches.
[Dense cross-hatch]	6 to 8 inches.
[Solid black]	Over 8 inches.





## Daily Precipitation for March, 1917—Continued from page 22.

		Day of month.																															Total.	
Stations.	Watersheds.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Rhode Island.																																		
Block Island ***	Coast		.11	.32	.51	.58			.93			.12			.16	.01		.49	T.			.01		.01	.70			.81		.09			4.85	
Bristol	do		.37	*	2.02				.71			.10			T.	.03		.31	T.						.47			*	.72	.03			4.76	
Greene	do		.28				1.40		.58			.13				.05		.50							.56				1.15	.08			4.73	
Hope Valley	do		.40	.30	.60				1.38									.62							.63			2.50		.10			6.53	
Kingston	do		.15	.10	.30				1.03			.13			.15		.86							T.	.02			1.04		.10			6.22	
Narragansett Pier ***	do		.53	.50	.60				1.04			.29			.11	.04		.64	.02							1.05		.50	.41	.10			5.83	
Pawtucket	do		.21			3.51						.21			.10			.12								.20			1.00	.06			6.27	
Providence ***	do		.06	.20	.22	.20			.51			.11	T.		.04	.01		.02	T.						.01	.29		1.04	T.	.06	T.		4.14	
Waltham Lake	do		.38	.10	.30				.60			.5	T.		.10										.48	.08		1.15	.20				3.56	
Connecticut.																																		
Bridgeport	Coast		.36	.18	1.04				.6			.13			.18		.85	T.				.04	.03	.16	.58			1.74	.15	T.			6.49	
Canton	Connecticut		.09	1.22	.11				.35			.22			.22		.42								.15	.36			*	1.84	.09		2.92	
Cheshire	Coast		.30	.20	.78				.54			.15			.10	.18		.80	.02							.82							5.82	
Cream Hill	Housatonic		.05	.60	.40				.60						.30	.15		.25	.05							.45			.62		T.		3.47	
Danielson	Coast		.33		1.20				.20			1					.25									.50			1.50				4.10	
East Hartland	do								.30						.36	.02		.40								.28			1.11				4.14	
Falls Village	Housatonic		.08	.25	.85				.26	T.		.06			.16	.08		.29							.10	.20			.57				2.90	
Hartford **	Connecticut		.01	.08	.40	.85	.45					.09			.25	.02		.33	T.						.02	.14	.27		1.21	T.	.51		4.12	
Hawleyville	Housatonic																	1.00								1.30	.42			1.47			8.74	
Lake Konomocoff	Coast		.65	.85	1.85				1.90			.20			.27	.03		1.10	T.				.09	.02	.15	.42			1.43	.01	.01		6.21	
New Haven ***	do		T.	.08	.82	.90			.61			.13			.27	.03		1.13	T.						.60				.80	.50			5.60	
New London	do		.18	.55	.27				1.20			.12			.14	.11		1.13	T.							.57			1.12		.10		4.60	
N. Grosvenor Dale	do		.13	*	1.36				.31			.08			.28	.05		.37	T.							.35					.88	T.		4.36
Norwalk	do		.30	*	1.04				.50			.17			.27			.20					.05		*	.35							3.10	
Southington	do		.10	.15	.10	.05			.30	T.		.05			.30			.20	.05							.30			.20	1.00	T.		4.84	
Storrs	Coast				1.48				.32			.15			.22	T.		.31	T.							.70					.03		3.95	
Torrington	Housatonic		.06	.20	.57	.50			.55	.05		T.	.06			.19	.02	*	.35	T.						.34	.15		*	1.02	T.	T.	4.99	
Voluntown	Coast		.35	*	1.20				.63			.24			*	.19		*	.55							.43			*	1.32	.08		4.24	
Waterbury	Housatonic		.13	*	1.11				.48			.10			.21			.38	T.						.06		.36							

## Special River Rainfall Stations.

Maine.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					</
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Except as otherwise indicated observations are generally made in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations.

T. Precipitation is less than .001 inch rain or melted snow.

Post-offices and places of these stations are as follows: Bangor, Me.; Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomocoff, New London Water Works, New London, Conn.; Moss Brook, Wendell Depot, Mass.; Priest Brook, Winchendon, Mass.; Sewall's Falls, Concord, N. H.

## Comparative Data for New England for March.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.								
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888	32.9	62	45	5.4	12	26.4	10	11	10		n.w.	72	e.	49.8	71	29	5.94	3.43	11	2.1	11	6	14	53	sw.		9.7	50	s.		
1889	35.2	72	46	5.46	12	22.8	9	14	11		n.w.	72	n.w.	49.4	71	29	2.79	3.44	10	8.4	12	7	12	54	n.w.		10.8	61	49	n.w.	
1890	34.3	72	46	5.46	13	22.8	9	14	11		n.w.	72	n.w.	49.4	71	29	2.79	3.44	10	8.4	12	7	12	54	n.w.		8.9	49	49	n.w.	
1891	31.6	67	41	4.68	19	12.6	11	9	12		n.w.	72	n.w.	49.4	71	29	2.79	3.44	11	21.4	13	8	10	57	n.w.		11.5	66	77	n.w.	
1892	34.7	71	46	5.46	19	12.6	11	9	12		n.w.	72	n.w.	49.4	71	29	2.79	3.44	9	10.4	13	8	10	54	n.w.		10.4	77	sw.		
1893	34.7	71	46	5.46	19	12.6	11	9	12		n.w.	72	n.w.	49.4	71	29	2.79	3.44	10	9	12	9	12	53	n.w.		11.3	70	se		
1894	34.7	71	46	5.46	19	12.6	11	9	12		n.w.	72	n.w.	49.4	71	29	2.79	3.44	10	9.1	14	7	10	56	n.w.		12.3	87	se		
1895	34.7	71	46	5.46	19	12.6	11	9	12		n.w.	72	n.w.	49.4	71	29	2.79	3.44	12	7.4	10	9	12	53	n.w.		11.0	66	s.		
1896	34.7	71	46	5.46	19	12.6	11	9	12		n.w.	72	n.w.	49.4	71	29	2.79	3.44	10	9.1	14	7	10	56	n.w.		12.3	70	n.w.		
1897	34.7	71	46	5.46	19	12.6	11	9	12		n.w.	72	n.w.	49.4	71	29	2.79	3.44	11	13.8	15	7	9	57	n.w.		11.6	79	s.		
1898	34.7	71	46	5.46	19	12.6	11	9	12		n.w.	72	n.w.	49.4	71	29	2.79	3.44	10	9.7	16	6	9	57	n.w.		11.9	64	s.		
1899	34.7	71	46	5.46	19	12.6	11	9	12		n.w.	72	n.w.	49.4	71	29	2.79	3.44	13	1.6	11	6	14	47	sw.		13.0	64	s.		
1900	34.7	71	46	5.46	19	12.6	11	9	12		n.w.	72	n.w.	49.4	71	29	2.79	3.44	10	10.6	11	8	12	45	n.w.		12.2	86	se		
1901	34.7	71	46	5.46	19	12.6	11	9	12		n.w.	72	n.w.	49.4	71	29	2.79	3.44	3	1.7	18	8	5	74	n.w.		12.7	71	n.w.		
1902	34.7	71	46	5.46	19	12.6	11	9	12		n.w.	72	n.w.	49.4	71	29	2.79	3.44	11	39.3	16	6	9	59	n.w.		12.1	67	ne.		
1903	34.7	71	46	5.46	19	12.6	11	9	12		n.w.	72	n.w.	49.4	71	29	2.79	3.44	12	15.9	13	7	11	55	n.w.		13.1	69	se.		
1904	34.7	71	46	5.46	19	12.6	11	9	12		n.w.	72	n.w.	49.4	71	29	2.79	3.44													
1905	34.7	71	46	5.46	19	12.6	11	9	12		n.w.	72	n.w.	49.4	71	29	2.79	3.44													
1906	34.7	71	46	5.46	19	12.6	11	9	12		n.w.	72	n.w.	49.4	71	29	2.79	3.44													
1907	34.7	71	46	5.46	19	12.6	11	9	12		n.w.	72	n.w.	49.4	71	29	2.79	3.44													
1908	34.7	71	46	5.46	19	12.6	11	9	12		n.w.	72	n.w.	49.4	71	29	2.79	3.44													
1909	34.7	71	46	5.46	19	12.6	11	9	12		n.w.	72	n.w.	49.4	71	29	2.79	3.44													
1910	34.7	71	46	5.46	19	12.6	11	9	12		n.w.	72	n.w.	49.4	71	29	2.79	3.44													
1911	34.7	71	46	5.46	19	12.6	11	9	12		n.w.	72	n.w.	49.4	71	29	2.79	3.44													
1912	34.7	71	46	5.46	19	12.6	11	9	12		n.w.	72	n.w.	49.4	71	29	2.79	3.44													
1913	34.7	71	46	5.46	19	12.6	11	9	12		n.w.	72	n.w.	49.4	71	29	2.79	3.44													
1914	34.7	71	46	5.46	19	12.6	11	9	12		n.w.	72	n.w.	49.4	71	29	2.79	3.44													
1915	34.7	71	46	5.46	19	12.6	11	9	12		n.w.	72	n.w.	49.4	71	29	2.79	3.44													
1916	34.7	71	46	5.46	19	12.6	11	9	12		n.w.	72	n.w.	49.4	71	29	2.79	3.44													
1917	34.7	71	46	5.46	19	12.6	11	9	12		n.w.	72	n.w.	49.4	71	29	2.79	3.44													



MAY 21 1917

U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

NEW ENGLAND SECTION

APRIL, 1917

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BY  
JOHN W. SMITH  
METEOROLOGIST

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
MAY 18, 1917



Departure of the Mean Temperature from the Normal, April, 1917.





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

VOL. XXIX.

BOSTON, MASS., APRIL, 1917.

No. 4.

## GENERAL SUMMARY.

The month was somewhat colder than usual, with a moderate deficiency in precipitation. There were comparatively few days with temperature above normal, and the average for the month, with the exception of 1911 and 1914, was the lowest for any April since 1907. The precipitation was well distributed throughout the month and over the section. The deficiency, however, was somewhat greater in Rhode Island and Connecticut than in the other States. The snowfall, although only about one-half of that of April, 1916, was somewhat above the average amount. In the northern States snow fell frequently during the first half of the month, and in the woods a considerable amount remained on the ground during the first and second decades. From 3 to 2 inches of snow fell on the coast on the 9th, but which melted within a few days. The amount of sunshine was less than usual.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 14 stations reporting, was 29.94 inches, which was .03 inch below the normal for the month, and .03 inch above the mean for April, 1916. The highest monthly mean was 29.97 inches, at Northfield, Vt. and New Haven, Conn.; the lowest, 29.89 inches, at Eastport, Me. The highest recorded was 30.43 inches, at Burlington, Vt. on the 4th; the lowest, 29.18 inches, at Eastport, Me. on the 10th. The monthly range for the section was 1.25 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 13 stations, was 41.3°, which was 1.8° below the mean for April, 1916. During the past 29 years the average April temperature has been higher in 24 years, the same in 1 year, and lower in 4 years than that of the present month. The highest average April temperature during this period was 48.7°, in 1910; the lowest, 40.0°, in 1907. The average temperature for the several States of the section was as follows: Maine, 39.0°; New Hampshire, 39.5°; Vermont, 39.4°; Massachusetts, 42.9°; Rhode Island, 42.0°; Connecticut, 44.4°. The average temperature for the section was 2.1° below the normal. The departures from the normal for the several States were as follows: Maine, -1.5°; New Hampshire, -2.9°; Vermont, -2.4°; Massachusetts, -2.0°; Rhode Island, -3.0°; Connecticut, -1.4°. The highest monthly mean was 47.3°, at New London, Conn.; the lowest, 35.1°, at Greenville and Langtown, Me. The highest recorded was 79°, at New London and Waterbury, Conn. on the 1st, and Storrs, Conn. on the 23d; the lowest, 3°, at Madison, Me. on the 11th. The greatest local monthly range was 64°, at Madison, Me.; the least, 37°, at Bristol, R. I. The greatest daily range was 50°, at Patten, Me. on the 24th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 14 stations reporting, was 74 per cent, which was 1 per cent below the average for April, 1916, and 4 per cent above the normal for the month. The highest monthly average was 83 per cent, at Nantucket, Mass. and Block Island, R. I.; the lowest, 67 per cent, at Fall River, Mass. and Hartford, Conn.

## PRECIPITATION.

The average for the section, as determined from the records of

83 stations, was 2.53 inches, which was 0.79 inch below the average for April, 1916. During the past 29 years the average April precipitation has been greater in 20 years and less in 9 years than that of the present month. The greatest April precipitation during this period was 6.80 inches, in 1901; the least, 1.02 inches, in 1892. The average for the several States was as follows: Maine, 2.82 inches; New Hampshire, 2.20; Vermont, 2.12; Massachusetts, 2.69; Rhode Island, 2.69; Connecticut, 2.49. The average for the section was 0.66 inch below the normal for the month. The departures from the normal for the several States were as follows: Maine, -0.16 inch; New Hampshire, -0.75; Vermont, -0.34; Massachusetts, -0.73; Rhode Island, -1.15; Connecticut, -1.22. The greatest monthly amount was 4.88 inches, at Plymouth, Mass.; the least, 1.25 inches, at Danielson, Conn. The greatest amount in 24 hours was 2.03 inches, at Rockport, Mass. on the 6th. The average snowfall for the section was 4.5 inches, which was 3.9 inches below the average for April, 1916, and 1.0 inch above the normal for the month as determined from the records of the past 30 years. The greatest average snowfall in any April during this period was 13.1 inches, in 1907; the least, a trace, in a number of years. The average snowfall in the several States was as follows: Maine, 5.9 inches; New Hampshire, 2.6; Vermont, 2.2; Massachusetts, 5.5; Rhode Island, 7.2; Connecticut, 3.7. The average number of days with .01 inch or more of precipitation was 11, 1 less than the average for April, 1916, and 1 more than the normal number for the month.

## WIND.

The prevailing direction of the wind was from the northwest, which is the normal direction for the month. The greatest monthly wind movement at any station was 12,344 miles at Blue Hill Observatory, Hyde Park, Mass.; the least, 4,599 miles, at Concord, N. H. The average hourly velocity was 11.1 miles, which was 0.2 mile less than the average for April, 1916, and 0.1 mile below the normal for the month. The highest recorded velocity was 63 miles per hour from the northwest, at Portland, Me. on the 4th. This is about the usual maximum velocity for the month.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 10; partly cloudy, 7; cloudy, 13, which compares with the normal for April of 11 clear, 8 partly cloudy, and 11 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 49, which was 7 per cent above the average for April, 1916, and 7 per cent below the normal for the month, as determined from the records of the past 25 years. The greatest percentage of possible sunshine at any station was 73, at Amherst, Mass.; the least, 31, at Northfield, Vt. The greatest percentage of possible sunshine in any April since the beginning of the automatic records in 1893, was 71, in 1899; the least, 36, in 1901.

## DATES OF MISCELLANEOUS PHENOMENA.

*Aurora*.—Enosburg Falls, Vt., 28.

*Halos, Lunar*.—Boston, Mass., 1, 15; New Haven, Conn., 1; Norwalk, Conn., 4.

*Halos, Solar*.—Eastport, Me., 20, 22; Blue Hill, Mass., 1, 5, 8, 22, 24; Boston, Mass., 1, 5, 24; Nantucket, Mass., 5; Somerset, Mass., 5, 19, 24; New Haven, Conn., 5, 22.

*Thunderstorms* (dates and number of observers reporting on each): Maine—20th, 1; 21st, 3. New Hampshire—21st, 7. Vermont—21st, 6; 22d, 2. Massachusetts—3d, 1; 6th, 1; 21st, 14; 22d, 1. Rhode Island—3d, 1; 20th, 1; 21st, 3; 22d, 1. Connecticut—1st, 3; 21st, 11; 22d, 2.



## Climatological Data for April, 1917.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				No. of days.				Prevailing direction of wind.	Observer.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.			Cloudy.
Maine.																				
Bar Harbor	Hancock	20	31	41.3	-0.4	62	23	20	10†	32	3.73	+0.56	0.80	7.5	10	17	6	7	se.	Mount Desert Nurseries.
Cornish	York	778	62	42.0	-0.8	70	22	21	10	37	3.34	-0.20	1.75	0.5	11	8	4	18	sw.	T. H. West.
Eastport	Washington	53	45	38.1	-0.2	60	23	18	10	26	3.22	+0.28	1.51	17.5	11	6	12	12	nw.	U. S. Weather Bureau.
Farmington	Franklin	450	20	39.7	-2.7	69	22	16	10	34	3.19	+0.60	1.30	T.	10	8	10	12	nw.	State Normal School.
Gardiner	Kennebec	163	25	41.0	-2.6	70	22	18	10	30	3.04	-0.35	1.16	1.5	11	12	4	14	n.	Samuel D. Soule.
Greenville	Piscataquis	1,140	13	35.1		62	22	11	10	29	3.25	+0.47	0.82	10.4	12	6	7	17		U. S. Weather Bureau.
Houlton	Aroostook	362	15	39.2		62	23	22	10	34	1.74	-0.26	0.40	12.0	8	9	13	8	w.	Bangor & Aroostook RR.
Langtown	Franklin	1,500	1	35.1		62	22	19	10	30	2.56		0.65	4.2	10	10	15	11		Langtown Co.
Lewiston	Androscoggin	185	34	39.1	-2.7	65	22	20	10	26	3.34	-0.03	1.78	0.2	12	6	15	9	nw.	Union Water Power Co.
Madison	Somerset	257	14	38.6		67	23	3	11	31	3.03	-0.89	1.52		9	14	4	12	nw.	William Jardine.
Millinocket	Penobscot	386	14	38.6		66	22	17	10	38	3.00	-0.30	1.25	6.8	12	8	3	19	w.	Great Northern Paper Co.
North Bridgton	Cumberland	450	24	39.4	-3.5	69	22	17	10	34	3.02	-0.32	1.16	T.	13	10	8	12	n.	C. L. Chadbourne.
Orono	Penobscot	129	48	41.6	+1.1	66	22	14	11	37	2.39	-0.52	0.50	12.0	9	16	6	8	nw.	Maine State College.
Patten	do	550	15	37.4		70	24	10	2	50	2.00	-0.69	0.70	10.0	4	8	5	12	sw.	Bangor & Aroostook RR.
Portland	Cumberland	99	46	40.2	-2.8	60	22	21	10	25	2.93	-0.18	1.66	1.8	13	7	8	15	nw.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	8	37.3		64	22	9	1	35	2.40	-0.58	0.60	12.0	7	12	8	10	n.	E. M. Libby.
Rumford	Oxford	505	24	39.4	-2.0	63	22	18	10	27	2.77	-0.32	1.70	1.2	10	11	5	14	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	13	37.6		61	22	6	1	35	2.53	+0.57	0.53	7.2	11	11	6	13	nw.	Rev. J. M. Thomas.
Winslow	Kennebec	90	22	41.2	0.0	68	22†	16	10	35	2.09	-0.67	0.70	1.0	8	8	9	13	w.	Hollingsworth & Whitney.
New Hampshire.																				
Alstead Center	Cheshire	1,120	13	39.9	-4.1	62	19†	13	10	27	1.92	-1.10	0.68	6.0	10	13	6	11	nw.	Frank Dewing.
Bethlehem	Grafton	1,470	25	37.0	-3.5	62	22	13	10	26	2.43	-0.15	0.64	3.0	11	8	3	19	nw.	Benjamin Tucker.
Concord	Merrimack	350	57	40.9	-2.9	70	22	22	10	30	1.63	-1.16	0.65	0.3	10	10	5	15	nw.	U. S. Weather Bureau.
Durham	Stafford	88	22	41.4	-2.6	68	22	21	10	30	1.45	-1.58	0.72		9	14	4	12	nw.	N. H. Agr. College.
Franklin	Merrimack	440	18	41.0	-2.2	70	22	20	10	35	2.65	-0.55	1.30	4.0	13	9	7	14	nw.	Dr. C. P. Webster.
Glencoff	Grafton	1,650	4	35.6		65	22	12	10	28	3.16		1.43	5.3	14	7	8	15	nw.	State Sanatorium.
Grafton	do	863	31	38.3	-3.0	68	22	19	10	35	2.08	-0.65	0.75	5.5	8	10	4	16	nw.	P. R. Kimball.
Hanover	do	603	83	39.8	-1.8	68	22	19	10	36	2.02	-0.33	0.76	0.5	13	2	8	20	n.	Dartmouth College.
Keene	Cheshire	506	32	41.6	-2.5	70	19†	21	25	38	1.63	-1.02	0.60	0.2	10	8	9	13	nw.	Samuel Wadsworth.
Nashua	Hillsboro	125	32			70	23	21	10†	35	2.83	-0.59	1.60	2.0	10	7	14	9	nw.	C. B. Stevens.
Newton	Rockingham	126	29	40.3	-4.1	70	23	21	10†	35	2.83	-0.59	1.60	2.0	10	7	14	9	nw.	W. C. Gale.
Plymouth	Grafton	500	29	39.1	-2.1	66	22	16	10	31	2.37	-0.38	0.95	0.5	12	8	4	18	w.	Mrs. Hattie G. Trow.
Vermont.																				
Bloomfield	Essex		10	37.4		64	22	12	10	32	1.79	-0.99	0.43	1.0	16	7	3	20	s.	Lyman Falls Power Co.
Burlington	Chittenden	404	10	39.8	-0.9	68	21	17	10	23	2.42	+0.55	0.58	3.1	16	6	7	17	n.	U. S. Weather Bureau.
Cavendish	Windsor	910	14	39.3		67	22	20	10	33	2.80	+0.63	0.97	2.0	10	10	8	12		Colonial Power Co.
Chelsea	Orange	840	22																	W. F. Dewey.
Cornwall	Addison	517	24	42.0	-3.3	72	21		10	27	1.95	-0.01	0.65		10	10	7	13	n.	C. H. Lane.
Enosburg Falls	Franklin	601	26	38.8	-3.9	69	21	14	10	31	2.27	-0.24	0.59	10.0	12	8	7	15	w.	J. W. Pomeroy.
Hyde Park	Lamoille	576	5	38.2		65	19†	15	10	34	3.16		0.74	1.0	15	5	11	13	w.	A. V. Wiswell.
Northfield	Washington	876	31	37.5	-2.7	64	22	15	10	31	2.05	+0.04	0.59	1.6	12	4	7	19	s.	U. S. Weather Bureau.
Rutland	Rutland	562	1	41.3		77	22	18	10	37	1.74		0.36	0.5	13	11	4	15	nw.	George H. Ross.
Somerset	Windham	2,096	6	35.8		71	21	15	9	32	2.05		0.80	3.2	14	6	10	14	nw.	Power Construction Co.
St. Johnsbury	Caledonia	711	24	39.7	-2.1	68	22	17	10	32	2.29	+0.04	0.48	1.3	16	6	9	15	n.	Fairbanks Museum.
Vernon	Windham	310	2	42.0	-3.6	69	22	24	25	42	1.52	-1.60	0.55		7	6	18	6	nw.	Conn. River Power Co.
Wells	Rutland	750	26	40.0	-1.8	70	21	17	10	30	1.83	-0.65	0.77	1.0	10	8	7	15	s.	E. R. Pember.
Woodstock	Windsor	700	25	40.9	-0.9	70	23	16	10	45	1.66	-1.09	0.81	T.	8	7	6	17		John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	28	43.6	-1.8	71	19	25	15	35	1.83	-1.20	0.71	T.	10	19	7	4	nw.	Mass. Agr. College.
Blue Hill	Norfolk	640	33	40.8	-3.7	69	23	22	9	24	3.18	-0.42	0.90	12.2	14	8	5	17	nw.	Blue Hill Observatory.
Boston	Suffolk	124	47	44.0	-1.3	72	23	26	10	23	2.72	-0.83	1.23	9.1	11	10	6	14	nw.	U. S. Weather Bureau.
Chestnut Hill	do	124	37	44.2	-2.8	71	23	24	9†	29	3.01	-0.81	0.79	6.2	11	18	0	12		Met. Water Board.
Clinton	Worcester	370	21	42.4		69	22	23	10	26	1.64	-1.28	0.72	T.	9					Do.
Concord	Middlesex	139	27	42.0	-3.1	70	22†	24	9†	34	2.43	-0.80	0.84	2.7	12	8	9	13	nw.	Fred A. Tower.
Fall River	Bristol	200	51	44.0	-2.4	70	23	25	9	22	3.17	-0.75	1.00	10.0	15	8	14	8	nw.	C. V. S. Remington.
Fitchburg	Worcester	550	34	42.3	-3.3	70	22	22	10	34	1.66	-1.46	0.45	2.0	9	10	5	15	nw.	Dr. A. P. Mason.
Framingham	Middlesex	160	37	44.2	-2.5	70	23	23	9	29	2.42	-1.17	1.12	3.2	12					Met. Water Board.
Lawrence	Essex	51	33	42.6	-3.5	72	22	23	10	28	2.68	-0.78	1.21	2.0	12	7	15	8	w.	Essex Company.
Lowell	Middlesex	100	32	43.8	-1.5	68	22†	24	9†	32	2.87	-0.84	1.84		10					Props. Locks & Canals.
Nantucket	Nantucket	47	31	41.6	-2.6	67	23	25	9	26	4.21	+1.57	1.31	5.0	13	9	6	15	nw.	U. S. Weather Bureau.
New Bedford	Bristol	88	105	43.4	-1.0	69	23	25	9†	31	3.23	-0.74	1.27	12.0	12	13	3	14	nw.	City Engineer.
Plymouth	Plymouth	50	32	40.2		72	23	22	10	30	4.88	+0.54	1.86	12.5	11	10	7	13	e.	Miss L. B. Knapp.
Provincetown	Barnstable	40	30	42.4	-2.4	68	23	25	10	24	4.37	+1.07	1.52	12.0	9	16	10	4		Gideon Bowley.
Rockport	Essex	25	15	41.2		71	22†	24	10	33	3.31		2.03	9.0	15	14	3	13	nw.	U. S. C. G. Station.
Rutland	Worcester	1,160	15	40.0		66	22†	20	9	28	1.99		0.47	1.1	10	12	4	14	e.	State Sanatorium.
Springfield	Hampden	199	7	46.5	-0.1	74	22	26	10	34	1.58	-1.65	0.47		11	10	7	13	nw.	U. S. Army.
Turners Falls	Franklin	200	31	43.5	-2.1	67	22	25	10	30	1.87	-0.70	0.63		8	11	8	11		Turners Falls Co.
Westboro	Worcester	298	43	46.1	-0.1	70	22†	28	8†	30	2.04	-1.41	0.90	1.8	6					Miss E. W. Newcomb.
Williamstown	Berkshire	711	36	42.7	-1.3	76	21	23	10	82	2.54	-0.19								



Daily Precipitation for April, 1917.

Stations.	Watersheds.	Day of month.																															Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Maine.																																		
Ashland	St. John			.38			.16	.53	.11	.04	.09	.16			.63								.25									2.61		
Bar Harbor	Coast		.18	.50	.50		.55	.40		.28	.16	.01			.80								.35									3.73		
Cambridge	Kennebec																																	
Cornish	Saco	.24	.20				1.75	.12						.09						.08		.50	.15						.17			.02	3.34	
Danforth	Penobscot		.10	.75			.50	.47		.60	.60			.80									.20						.20				4.22	
Eastport***	Coast		.04	.66	.20		.12	.02		.73	.98			.12	.13								.14							.08			3.22	
Eustis	Kennebec	T.	.22	.07			.75	.23	.01	T.	T.	.01			.23	T.	T.					.17	.38	T.	.01				.06	T.	.02		2.16	
Farmington	do	.03	.32	.21			1.30	.44		T.	T.			.08	.24					T.		.20	.18		.19								3.19	
Gardiner	do	.01	.40	.12			1.16	.25	.02	.12				.42							.16	.36	.02										3.01	
Greenville***	do	T.	.40	.14			.82	.46	.10	T.		.02	.13		.80	T.	T.					.02	.32	.02						T.	.02		3.25	
Houlton	St. John		.27	.12			.28	.40					.20		.20														.15				1.74	
Howe Brook	Penobscot			.30			.40	1.10	1.00	.20	.20	.10			.50								.36						.30				4.46	
Lamington**	Kennebec		.25	.34			.65	.25	.07	T.	T.	T.			.30					.45		.30	.30			T.			.05				2.56	
Lewiston	Androscooggin	.17	.41	.06			1.78	.14	.07	.03	T.				.10	.09						.16	.31	.45						T.	T.		3.34	
Madison	Kennebec	.19	.11			.03	1.52	.10							.27	.03						.52	.26										3.45	
Millinocket	Penobscot	.16	.26	.02		.02	1.25	.19		.12	.12				.67							.06	.08							.05			3.00	
North Bridgton	Saco	.20	.18	.08			1.16	.12						.09	.10					.07		.41	.34	.11					.11			.02	3.02	
Orono	Penobscot		.18	.18			.17	.37			.50	.30			.40							.40	.23	.06									2.59	
Patten	do						.60			.30				.70																			2.40	
Portland***	Coast	.13	.14	.03			1.66	.08		.25				.17	.01					.04		.14	.24	.02					.02				2.93	
Presque Isle	St. John			.30			.50	.20		T.	T.	.60			.30							.20				T.				.30	T.		2.40	
Rumford	Androscooggin	.15	.27	.02			1.58	.12							.27	.04						.17	.11								T.		2.77	
Van Buren	St. John			.37			.05	.35	.08	T.		.36			.53								.15			.15	.03		.01				2.53	
Winslow	Kennebec		*	.33			.53	.31		.02	T.	T.			.20							*	.70										2.09	
New Hampshire.																																		
Alstead Center	Connecticut	.17	.01				.28	.24					T.	T.					.09			.68	.07	.10				T.	.25	.03		T.	1.92	
Bethlehem	do	.64				T.	1.18	.21					T.		.20	.16			.18			.47	.30					T.	.09	.02		.04	2.43	
Brookline	Merrimack	.12					1.10						T.						.16			.34	.20						.54			.02	2.48	
Concord***	do	.03	.02				.65	.19						.03					.04			.35	.06					.01	.25			T.	1.63	
Durham	do			.01			.72	.03							.05							.18	.06	.08					.28			.04	1.45	
Franklin	do	.15	.03	.02			1.30	.08	.07		T.			.05	.10	.01						.39	.08	.02				T.	.37			.05	2.65	
Glencoff	do	.11	.06				*	1.75		.03	T.			.21	.11		.03	T.			.02	.56	.10						.06	.05		.07	3.16	
Grafton	do	.15					.75	.31					.08									.55	.08		.04				.12			T.	2.08	
Hanover	Connecticut	1.11	T.				.26	.29			T.	T.		.10			.01					.76	.18					.01	.15	.03	.01	.10	2.02	
Keene	do	.07					.35	.18						.01							.08	.60	.06	.09	.11				.18	T.	T.	.01	1.63	
Nashua	Merrimack		.05				1.60	.08		.15				.06								.32	.04						.05	.37			T.	2.83
Newton	do	.28	.02				.95	.14		T.				.07	.01						.05			.05					T.	.19			.04	2.37
Plymouth	do																																	
Vermont.																																		
Bloomfield	Connecticut	.43	.22	.02			.03	.06			.02				.06	.15		.04		.10		.37	.17	.02					.05	.04		.01	1.79	
Burlington***	Champlain	.50	.06	T.			.38	.16		.01	.03			.14	.04					.04		.58	.08					.13	.18	.07		.01	2.42	
Cavendish	Connecticut	.33	T.	T.		.02	.97	.17														.90	.03	.20	.02					.12		.04	2.80	
Chelsea	do																																	
Cornwall	Champlain		.20	.05			.15	.27			.05											.65	.10					T.	.40			.05	1.95	
Enosburg Falls	do	.50	.17	T.			.02	.59		T.	T.			.10	.05	T.	T.	.07	.05			.31			T.			T.	.23	.13	T.	T.	2.27	
Hyde Park	do	.74	.15	.01			.18	.39			.01			.13		T.		.08	.10			.67	.37					T.	.10	.08		.04	3.16	
Northfield***	Champlain	.44	.07	T.			.53	.15			T.			.12			.01					.42	.14					.03	.11	.02	T.	T.	2.65	
Rutland	do	.31	.03				.02	.36	.11		.01											.30	.25		.07	.11				.06	.08		.03	1.74
Somerset	Connecticut	.20		.05			*	.30	.07												.05	.21	.80	.09		.02		*	.15	.04		.07	2.65	
St. Johnsbury	do	.26	.02	.01			.28	.44	.03		.02	T.	T.	.17	.11						.14	.34	.24	.07				.10	.02		.04		2.29	
Vernon	do					.26	.55															.35	.05					.25	.02			.04	1.52	
Wells	Champlain		.06				.06	.27			.05											.77			.22				.22	.07			.06	1.83
Woodstock	Connecticut						*	.13					.09									.81	.17						.15				1.66	
Massachusetts.																																		
Amherst	Connecticut	.23					.71	.16											.01			.01	.48					*	.20		*		1.83	
Ashland	Merrimack						1.08		.50						.01						.11		.45					*	.44		*		2.62	
Bakers Bridge**	do						.88	.31	.87	.11					.07							.25	.05	.17				T.	.38				3.09	
Bedford	do	.06					.54	.24	.28						.17							.25	.17	.15				.11	.37				2.51	
Blue Hill	Coast	.09					.90	.22	.86					.01	.06							.12	.15	.06	.23				.09	.34			.02	3.18
Boston***	do	.06					1.19	.13	.44		T.				.03							.17	.18						.05	.29			T.	2.72
Brookton	Coast			.05			.60	.14	.59						.16	.01						.12	.05	.11					.01	.45			T.	2.34
Chestnut Hill	do					.49																												

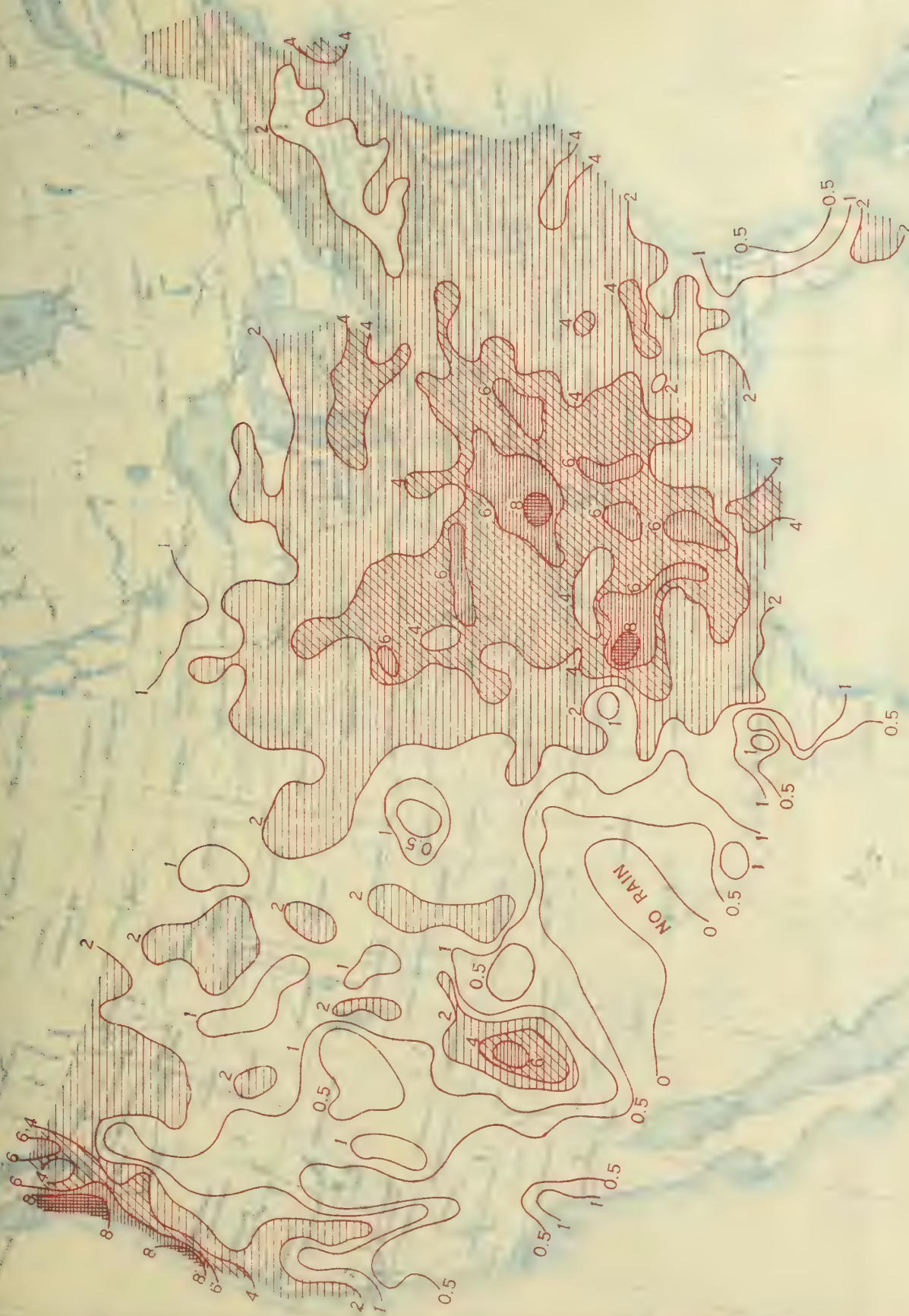
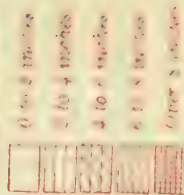


## Stations.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean	
Maine.																																	
Bar Harbor.....	Maximum.....	49	35	37	48	52	43	43	49	48	29	40	55	57	52	53	49	57	59	56	51	59	62	57	50	54	48	59	52	59	.....	50.7	
	Minimum.....	33	31	34	30	30	33	35	34	24	20	20	28	25	32	29	37	33	32	40	32	38	41	34	36	30	28	36	40	34	28	.....	31.9
Cornish.....	Maximum.....	41	37	46	52	56	39	48	48	35	39	48	55	55	59	52	55	62	58	66	47	50	70	65	60	61	50	47	59	43	55	.....	52.6
	Minimum.....	33	33	32	28	25	34	36	29	25	21	27	26	31	32	25	33	30	32	33	39	41	36	29	24	28	36	32	40	39	.....	31.4	
Eastport.....	Maximum.....	35	39	38	38	46	39	38	43	32	24	36	52	43	50	47	47	54	55	56	52	42	55	60	48	50	52	41	38	42	40	.....	44.4
	Minimum.....	26	33	31	31	32	33	34	29	24	18	24	29	32	32	33	34	38	40	36	38	37	34	32	30	33	33	31	33	31	.....	31.8	
Farmington.....	Maximum.....	43	33	42	44	50	40	39	38	30	27	39	50	48	50	49	45	60	57	64	58	44	69	61	58	56	56	52	51	61	62	.....	49.2
	Minimum.....	29	30	32	28	24	33	33	28	21	16	20	24	28	32	34	23	33	28	39	30	37	35	33	32	28	25	37	32	38	35	.....	30.2
Greenville.....	Maximum.....	33	30	35	38	46	40	39	33	26	21	30	48	43	40	43	38	52	50	56	42	39	62	54	43	47	50	48	40	57	56	.....	43.0
	Minimum.....	24	24	29	22	25	34	33	24	18	11	14	23	23	29	25	32	29	30	32	25	35	35	35	25	29	21	34	30	33	32	.....	27.2
Millinocket.....	Maximum.....	43	33	36	45	52	46	40	36	27	23	35	53	50	46	48	48	57	59	60	62	43	66	58	43	52	54	55	41	54	56	.....	47.4
	Minimum.....	20	30	32	27	24	34	33	26	22	17	18	26	26	32	24	33	31	28	34	24	37	33	30	29	33	46	34	32	36	33	.....	29.9
Orono.....	Maximum.....	51	48	38	46	53	54	43	43	41	40	36	55	56	50	52	57	57	62	62	62	56	66	62	63	50	57	58	54	57	60	.....	53.0
	Minimum.....	29	31	33	22	24	35	37	31	21	16	14	27	26	32	25	35	30	32	39	35	38	40	34	30	30	20	36	34	37	34	.....	30.0
Portland.....	Maximum.....	41	36	43	47	49	40	44	30	30	38	44	46	49	44	48	56	50	56	49	46	60	60	48	56	46	46	54	52	46	.....	46.5	
	Minimum.....	33	33	34	33	31	35	35	30	22	21	26	28	29	34	32	37	35	38	35	40	40	43	45	34	31	34	38	36	39	37	.....	34.0
Presque Isle.....	Maximum.....	37	38	38	39	46	48	42	38	34	22	35	52	47	45	49	47	55	58	57	58	46	64	60	49	47	55	54	48	52	54	.....	47.1
	Minimum.....	9	14	24	29	22	36	36	32	20	15	19	29	25	32	31	32	28	28	33	23	38	35	34	29	32	30	30	30	35	32	.....	27.5
Rumford.....	Maximum.....	37	34	42	43	50	39	40	33	31	26	37	49	46	45	47	42	54	54	60	47	45	62	52	43	52	52	46	51	56	.....	46.0	
	Minimum.....	32	33	34	31	32	35	36	29	23	18	21	24	32	34	30	36	36	32	37	33	40	36	38	33	33	39	40	40	40	.....	32.9	
Van Buren.....	Maximum.....	41	42	37	37	54	46	42	35	36	28	36	50	48	44	51	47	51	54	55	55	51	61	55	47	44	56	55	45	56	53	.....	47.1
	Minimum.....	6	20	32	29	21	34	33	27	25	15	21	20	32	32	33	30	31	29	25	22	31	41	31	28	29	22	30	30	36	32	.....	28.0
New Hampshire.																																	
Alstead Center.....	Maximum.....	47	43	44	46	49	41	39	40	35	39	47	40	45	46	41	41	55	54	62	57	55	62	58	52	55	48	40	51	56	48	.....	47.5
	Minimum.....	38	38	33	30	28	31	32	25	22	18	28	24	29	36	29	29	33	34	37	41	49	44	44	32	28	33	33	36	35	39	.....	32.3
Bethlehem.....	Maximum.....	40	46	44	50	46	45	45	28	25	20	29	30	33	38	35	39	49	50	58	51	61	62	55	42	49	43	49	53	50	.....	43.9	
	Minimum.....	33	30	33	35	40	39	41	20	15	13	17	21	24	24	29	29	49	30	37	35	35	39	38	23	24	31	32	34	31	.....	30.0	
Concord.....	Maximum.....	46	39	48	47	54	39	43	44	33	31	45	43	49	52	46	41	58	51	65	45	51	70	60	52	57	46	43	55	51	.....	48.8	
	Minimum.....	35	34	34	34	27	33	33	30	25	22	26	32	31	30	23	35	37	39	48	43	32	27	30	33	40	36	38	38	38	.....	33.0	
Franklin.....	Maximum.....	46	38	48	48	54	48	41	44	38	28	42	42	47	52	46	48	59	55	68	62	49	70	61	56	59	54	44	56	61	53	.....	50.6
	Minimum.....	34	33	34	32	25	33	35	28	25	20	24	29	31	31	23	33	36	28	34	35	37	38	33	32	24	27	32	38	36	38	.....	31.5
Hanover.....	Maximum.....	42	40	49	47	50	44	43	42	34	30	45	39	46	47	42	46	57	53	65	49	62	68	60	50	57	47	42	54	56	50	.....	48.6
	Minimum.....	35	34	33	31	23	34	33	26	21	19	23	25	32	26	25	32	31	28	34	36	40	44	41	28	21	28	34	37	31	39	.....	31.1
Keene.....	Maximum.....	56	50	52	51	54	44	44	47	38	38	52	44	50	53	46	50	60	53	70	59	60	70	66	55	59	50	42	56	58	51	.....	52.6
	Minimum.....	37	35	34	26	23	32	34	28	26	22	27	32	25	23	23	30	26	35	37	41	39	37	28	21	30	34	35	28	39	.....	30.6	
Plymouth.....	Maximum.....	40	36	45	43	51	42	40	39	32	29	40	47	45	45	44	44	54	57	63	55	53	66	57	46	58	46	44	54	63	54	.....	47.5
	Minimum.....	34	34	32	30	28	33	26	23	16	24	23	32	30	23	33	35	26	33	32	46	36	33	32	29	26	33	38	35	29	.....	30.7	
Vermont.																																	
Burlington.....	Maximum.....	50	55	47	46	48	43	39	36	29	31	31	36	37	45	41	42	54	57	58	51	68	62	55	40	49	51	45	53	56	51	.....	47.0
	Minimum.....	32	33	36	29	27	36	29	24	20	17	21	30	30	30	30	32	33	34	37	43	50	42	35	30	29	36	39	39	33	.....	32.7	
Enosburg Falls.....	Maximum.....	45	56	49	50	50	42	40	34	29	28	34	43	35	43	42	38	40	60	60	69	64	57	45	58	47	46	54	52	52	.....	47.4	
	Minimum.....	36	34	37	21	24	38	31	22	18	14	16	24	30	30	26	32	30	29	35	33	48	38	35	22	24	29	37	37	29	.....	30.1	
Northfield.....	Maximum.....	41	37	46	44	47	41	41	36	29	29	37	31	43	44	40	42	52	55	58	44	61	64	55	41	51	48	43	50	56	49	.....	45.3
	Minimum.....	35	34	35	26	23	32	29	24	19	15	22	27	24	27	28	31	32	35	41	35	39	22	20	28	34	36	27	41	.....	29.5		
St. Johnsbury.....	Maximum.....	49	46	44	45	51	50	40	37	34	26	35	42	43	43	44	43	55	55	62	58	62	68	64	55	53	49	46	52	65	59	.....	49.1
	Minimum.....	35	35	35	28	23	38	35	24	18	17	21	24	21	29	25	32	34	28	34	32	39	38	34	26	22	34	38	33	41	.....	30.3	
Wells.....	Maximum.....	58	55	48	44	48	44	40	38	32	30	38	49	42	44	42	52	58	58	55	70	62	58	50	48	50	46	48	58	54	.....	48.3	
	Minimum.....	38	48	36	26	30	32	32	21	18	17	18	23	30	28	30	30	29	36	40	42	40	38	38	28	24	35	35	34	32	40	.....	31.8
Massachusetts.																																	
Amherst.....	Maximum.....	66	47	51	54	53	42	46	46	46	40	59	44	44	50	47	44	62	65	55	71	50	62	70	66	60	62	46	43	58	58	.....	53.0
	Minimum.....	37	37	35	32	27	33	36	30	28	30	38	33	32	27	25	34	35	32	43	42	43	42	43	35	27	36	35	34	31	41	.....	34.2
Blue Hill.....	Maximum.....	47	40	48	49	45	42	41	47	48	33	47	33	41	51	46	47	53	47	55	43	53	67	69	56	54	46	40	53	44	45	.....	47.7
	Minimum.....	35	34	33	34	33	32	34	30	22	23	26	28	30	27	29	30	34	33	38	41	40	50	49	40	31	36	32	37	38	.....	33.8	
Boston.....	Maximum.....	45	48	51	52	47	44	47	51	36	37	52	43	47	57	46	46																



Scale of Shading.





## Daily Precipitation for April, 1917—Continued from page 30.

Stations.	Watersheds.	Day of month.																															Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
<i>Rhode Island.</i>																																		
Block Island ***	Coast	.05	.04	T.	.57	.04	.43							.18						.05	.06	.12		.01	.11		.38	.02	T.		.08		2.14	
Bristol	do	.21	.02		.40	.10	.94							.49					T	.02	*	.02		.29			.26			T.		2.75		
Greene	do	.14	.01		.54	.50																	.20		.05		.30					1.74		
Hope Valley	do	.11			.77		.20	1.20						.30							.10	T.	.25		.05		.03	.35			.10		3.41	
Kingston	do	.14			.82	.08	.77							.39							.03	.23		.02			.30	.15			.08		3.01	
Narrag'sett Pier***	do	.16	.04		.66	.10	.70						T.	.43					T.		.07	.05	.18	T.	.10		.30	.09			.06		2.94	
Pawtucket	do	.20	.02		1.27		.55						T.	.10					.02	T.	*	.50					*	.48	T.		.02		3.16	
Providence**	do	.21	.01		.70	.11	.88						T.	.14					T.	T.	.09	.22	T.	.01			.17	.08	T.		T.		2.62	
Wallum Lake	do				.80	.23															.35	.10					.20	.10				1.78		
<i>Connecticut.</i>																																		
Bridgeport	Coast				T.	1.43	T.	.23												.12	.07	.44		.02	.08		.19	.08			.13		2.79	
Canton	Connecticut	.17				1.36	.23													.10	.20	.13					.22	.08			.24		2.73	
Colchester	Coast	.17				1.05	.20	.60												.15		.37		T.			*	.37		*	.27		3.18	
Cream Hill	Housatonic	.35				.60	.10		.03											.05		.08	.15				.10	.18			.12		1.76	
Danielson	Coast	.05				.25		.80												T.							.05						1.25	
East Hartland	do	.18				1.03	.22														.26	.12					.42	.13			.21		2.57	
Falls Village	Housatonic	.19				.80		.02		.02										.05		.22	.24					.22			.34		2.08	
Hartford ***	Connecticut	.21	T.		.01	1.08	.26	.02				T.								T.	.11	.13	.18	T.			.22	.09		T.	.16		2.47	
Lake Konomocoff	Coast	.09					.75														.27		.47					.31			.55		2.44	
New Haven ***	do	.11		T.	.25	1.07	.13	.40						T.	.20					.01	.12	.07	.28		.12	T.		.32	.02		.01	.09	3.00	
New London	do					1.35	.65	.53													.13	.09		1.02	.02	.30		.20	.25				4.74	
N. Grosvenor Dale	do	.28		T.		.27	.26	.51						T.							.02	.08	.28				*	.26			.03		1.99	
Norwalk	do				*	1.09		.24													.06	.04	.43		.05			.04	.03			.06		2.04
Southington	do					1.30	.10	.05													.10	.05		.10				.05	.10	T.		.10	1.95	
Storrs	Coast	.18				.85		.18														.07	.15					.33	T.			.11	1.87	
Torrington	Housatonic	.19				.86	.24		T.												.11	.12	.15	.14				*	.29		.41		2.51	
Voluntown	Coast	.22	.02			.78	.40							.05							.04	.07		.15		.06		*				.17	2.30	
Waterbury	Housatonic					1.47	.06														.10	.25	.14	.03				*	.30	T.		.23	2.72	
											</																							

## Special River Rainfall Stations.

<i>Maine.</i>																																	
Brownville	Saco		.13	.18	.10			.10	.65	.06		.15				.58							.30	.15									2.40
Mattawamkeag	Penobscot		.27	.35	.20		T.	.60	.30		.32	.25			.83								.10	.19							.10		3.51
West Enfield	do		.02	.01				.48	.20		.01				.85								.23										1.80
<i>New Hampshire.</i>																																	
Franklin Junction	Merrimack	.10	.10	T.			1.15							.10							T.	.47						.35	.10		T.		2.37
Lancaster	Connecticut	.54	.26				.06			.04					.30						.16				.12			.12	.05				2.23
Manchester	Merrimack	.09	T.	.01			.27	.73	.04					T.	.01		T.				.04	.02	.36	.06				.15	.06		.02		1.86
Sewall's Falls #	do		.11					.99							.08	.02				.02			.48	.01				.02	.32		.04		2.09
West Stewartstown	Connecticut		.60					T.		T.											.16		.36					.02		.09			1.21
<i>Vermont.</i>																																	
Bellow's Falls	Connecticut	.12					.18	.35	.03			T.		.02			T.		T.		.04	.16	.50	.07				.22	.06		.06		1.81
Wells River	do	.34	.40	.28				.48							.36								.50					.22					2.58
White River Junc'n	do	.16	.01	.01			.15	.40	.06					.08	T.		T.	T.			.01	.11	.69	.08	T.	.11		T.	.14	.07	.09		2.17
<i>Massachusetts.</i>																																	
Holyoke	Connecticut	.27					.55	.32													T.	.03	.14	.18				T.	.24	T.		.01	1.74

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations.

\*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

† Precipitation is less than 0.01 inch rain or melted snow.

\* Precipitation indicated in that of following day.

†† Post-office addresses of these stations are as follows: Langtown, Redington, Me.; Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.; Moss Brook, Wendell Depot, Mass.; Priest Brook, Winchendon, Mass.; Sewall's Falls, Concord, N. H.

## Comparative Data for New England for April.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.									
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	
1888....	40.1	89	- 5	2.70		11	4.3	11	13	6	....	nw.	9.4	46	sw.	1903....	44.8	87	- 1	2.69	3.05	8	1.5	13	8	9	65	nw.	11.9	60	ne.	
1889....	46.7	92	10	3.17	.....	9	2.0	8	10	12	....	ne.	10.8	52	ne.	1904....	41.5	78	0	5.68	3.27	12	7.7	10	9	11	52	nw.	10.4	55	w.	
1890....	41.2	80	6	2.63	.....	9	1.8	14	9	7	....	nw.	10.7	48	ne.	1905....	43.7	79	- 12	2.20	1.66	8	T.	12	10	8	63	nw.	10.9	63	w.	
1891....	45.7	84	2	2.99	.....	8	7.8	10	11	9	....	nw.	11.0	79	se.	1906....	43.9	77	- 7	2.85	3.33	9	5.5	13	8	9	60	nw.	9.9	68	se.	
1892....	44.8	81	4	1.02	.....	8	T.	11	10	8	....	nw.	10.9	51	ne.	1907....	40.0	77	- 3	3.20	2.23	9	13.1	11	8	11	48	nw.	11.7	70	nw.	
1893....	40.9	78	- 7	3.19	.....	14	7.7	9	8	13	48	nw.	11.0	63	se.	1908....	42.8	90	- 4	2.28	1.50	11	2.7	13	9	8	59	nw.	12.3	73	nw.	
1894....	41.8	84	1	2.47	.....	12	8.3	10	7	13	52	sw.	13.3	72	e.	1909....	43.0	86	- 2	4.59	5.26	12	2.5	11	9	10	48	nw.	12.7	90	w.	
1895....	43.8	84	8	4.54	4.25	13		10	7	13	39	sw.	10.8	69	e.	1910....	48.7	81	12	3.07	3.09	9	T.	12	8	10	53	nw.	11.0	56	s.	
1896....	45.8	97	6	1.31	1.23	8	3.7	11	11	8	46	nw.	11.7	54	w.	1911....	43.3	88	- 8	2.23	2.51	6	7.0	17	7	7	6	66	nw.	11.1	70	ne.
1897....	46.1	88	3	2.97	3.73	10	1.8	12	9	9	53	sw.	11.2	46	sw.	1912....	44.0	81	- 5	3.51	1.37	14	4.2	10	8	12	55	nw.	11.3	54	w.	
1898....	42.0	78	3	1.47	1.19	13	4.5	9	8	13	42	nw.	13.2	72	nw.	1913....	45.0	92	- 2	3.71	3.55	10	1.1	12	7	11	57	nw.	10.7	54	s.	
1899....	44.2	82	2	1.68	1.68	6	2.0	17	8	5	71	nw.	9.7	52	nw.	1914....	49.8	88	- 3	4.65	3.18	12	4.4	11	7	12	57	nw.	12.5	88	w.	
1900....	44.5	83	8	1.82	1.68	6		14	7	9	54	nw.	11.0	51	nw.	1915....	48.0	93	15	2.24	2.23	8	5.2	11	9	10	51	nw.	10.9	79	ne.	
1901....	44.7	87	15	6.80	5.00	14	T.	8	3	19	36	ne.	12.7	63	ne.	1916....	43.1	80	12	3.32	1.86	12	8.4	10	7	13	42	nw.	11.3	53	nw.	
1902....	45.4	86	14	3.67	3.30	9	T.	9	10	11	45	sw.	10.9	53	nw.	1917....	41.3	79	3	2.53	2.03	11	4.5	10	7	13	49	nw.	11.1	63	nw.	



U. S. DEPARTMENT OF AGRICULTURE  
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# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

MAY, 1917

BY

JOHN W. SMITH

METEOROLOGIST



BOSTON, MASS.  
WEATHER BUREAU OFFICE

JUNE 20, 1917



Departure of the Mean Temperature from the Normal, May, 1917.





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

OL. XXIX.

BOSTON, MASS., MAY, 1917.

No. 5.

## GENERAL SUMMARY.

The predominating feature of the month was the abnormally low temperature; the average for the section,  $47.8^{\circ}$ , being the lowest of record in the section averages, and  $2.1^{\circ}$  below that of the previous coldest May, which was in 1907. The month was, without doubt, one of the coldest of its name in the record of authentic observations in New England. At Amherst, Mass., a record extending back to 1837, no other May is found with a lower average temperature; also at Fitchburg, Mass., with a record extending back to 1855, the month was colder than any previous May. The amount of sunshine was much below the average, being the lowest for the month since 1901, and with few exceptions, the lowest for any May since the beginning of the record in 1893. The rainfall was near the normal, but the snowfall, however, was the greatest for any May in the section on record. The average temperature for April and May of the present year has been the lowest for these months in the past 30 years. The prevailing low temperature and lack of sunshine has greatly retarded vegetation, the season at the close of the month being from three to four weeks later than normal, and the observers stating it to be the latest ever known.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 14 stations reporting, was 29.81 inches, which was .16 inch below the normal for the month, and .08 inch below the mean for May, 1916. The highest monthly mean was 29.84 inches, at Northfield, Vt.; the lowest, 29.77 inches, Eastport, Me. The highest recorded was 30.31 inches, on the 31st, at a number of stations; the lowest, 29.11 inches, at Eastport, Me. on the 10th. The monthly range for the section was 1.20 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 14 stations, was  $47.8^{\circ}$ , which was  $7.0^{\circ}$  below the mean for May, 1916, and the lowest for any May within the record of the New England Section of the Climatological Service, beginning in 1893. The highest average May temperature during this time was  $60.6^{\circ}$ , in 1911. The average temperature for the several States of the section was as follows: Maine,  $46.3^{\circ}$ ; New Hampshire,  $46.3^{\circ}$ ; Vermont,  $46.1^{\circ}$ ; Massachusetts,  $49.3^{\circ}$ ; Rhode Island,  $48.6^{\circ}$ ; Connecticut,  $50.4^{\circ}$ . The average temperature for the section was  $7.3^{\circ}$  below the normal. The departures from the normal for the several States were as follows: Maine,  $-1.1^{\circ}$ ; New Hampshire,  $-8.6^{\circ}$ ; Vermont,  $-8.7^{\circ}$ ; Massachusetts,  $-7.3^{\circ}$ ; Rhode Island,  $-6.8^{\circ}$ ; Connecticut,  $-6.7^{\circ}$ . The highest monthly mean was  $53.8^{\circ}$ , at New London, Conn.; the lowest,  $42.8^{\circ}$ , at Van Buren, Me. The highest recorded was  $60.6^{\circ}$ , at Bridgeport, Conn. on the 20th; the lowest,  $20^{\circ}$ , at Chelmsford, Vt. on the 16th, and at Somerset, Vt. on the 4th. The greatest local monthly range was  $59^{\circ}$ , at Voluntown, Conn.; the least,  $33^{\circ}$ , at Block Island, R. I. The greatest daily range was  $46^{\circ}$ , at Cavendish, Vt. on the 31st.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 14 stations reporting, was 73 per cent, which was 1 per cent above the average for May, 1916, and normal for the month. The highest monthly average was 85 per cent, at Nantucket, Mass. and Block Island, Mass.; the lowest, 64 per cent, at New Haven, Conn.

## PRECIPITATION.

The average for the section, as determined from the records of 82 stations, was 3.41 inches, which was 0.44 inch below the average for May, 1916. During the past 29 years the average May precipitation has been greater in 15 years and less in 14 years than that of the present month. The greatest average May precipitation during this period was 5.83 inches, in 1901; the least, 0.68 inch, in 1903. The average for the several States was as follows: Maine, 3.06 inches; New Hampshire, 2.98; Vermont, 2.61; Massachusetts, 4.19; Rhode Island, 4.17; Connecticut, 3.66. The average for the section was 0.03 inch above the normal for the month. The departures from the normal for the several States were as follows: Maine,  $-0.33$  inch; New Hampshire,  $-0.16$ ; Vermont,  $-0.63$ ; Massachusetts,  $+0.77$ ; Rhode Island,  $+0.38$ ; Connecticut,  $+0.11$ . The greatest monthly amount was 6.68 inches, at Plymouth, Mass.; the least, 1.62 inches, at Eastport, Me. and Bloomfield, Vt. The greatest amount in 24 hours was 2.48 inches, at Kingston, R. I. on the 28th. The average snowfall for the section was 2.4 inches, which was the greatest of record for the month, the greatest average for any previous May being only trace. The average snowfall for the several States was as follows: Maine, 5.1 inches; New Hampshire, 3.6; Vermont, 1.8; Massachusetts, 0.7; Rhode Island, trace; Connecticut, trace. The average number of days with .01 inch or more of precipitation was 13, 2 more than the average for May, 1916, and 2 more than the normal number for the month.

## WIND.

The prevailing direction of the wind was from the northwest; the normal direction for the month is from the southwest, as determined from the records of the past 30 years. The greatest monthly wind movement for any station was 14,234 miles at Blue Hill Observatory, Hyde Park, Mass.; the least, 4,610 miles, at Amherst, Mass. The average hourly velocity was 12.0 miles, which was 1.7 miles above the average for May, 1916, and 1.5 miles above the normal for the month. The highest recorded velocity was 63 miles per hour from the northwest, at Portland, Me. on the 26th. This is greater than the usual maximum velocity for May.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 8; partly cloudy, 8; cloudy, 15, which compares with the normal for the month of 11 clear, 10 partly cloudy, and 10 cloudy days. The average percentage of possible sunshine, as determined from records of 11 stations having self-recording instruments, was 45, which was 4 per cent below the average for May, 1916, and 11 per cent below the normal for the month, as determined from the records of the past 25 years. The greatest percentage of possible sunshine at any station was 70, at Amherst, Mass.; the least, 28, at Northfield, Vt. The greatest percentage of possible sunshine in any May since 1893 was 78, in 1903; the least, 39, in 1907.

## DATES OF MISCELLANEOUS PHENOMENA.

*Auroras*.—Woodstock, Vt., 21, 28, 31.

*Halos, Lunar*.—Northfield, Vt. and Boston, Mass., 4; New Haven, Conn., 30, 31.

*Halos, Solar*.—Northfield, Vt., 21, 31; Woodstock, Vt., 21, 29, 31; Blue Hill, Mass., 7, 8, 10, 18, 19, 31; Boston, Mass., 7, 10, 19; Hingham, Mass., 7, 8, 26, 21, 31; New Haven, Conn., 4, 26, 31.

*Thunderstorms* (dates and number of observers reporting on each): Maine—20th, 2; 23d, 5. New Hampshire—18th, 4; 20th, 1; 23d, 3; 25th, 1. Vermont—9th, 1; 18th, 5; 19th, 1; 25th, 2. Massachusetts—1st, 5; 2d, 2; 9th, 1; 22d, 3; 23d, 12; 25th, 2; 26th, 1; 28th, 9; 29th, 2. Rhode Island—1st, 2; 22d, 1; 23d, 1; 28th, 6; 29th, 1. Connecticut—1st, 7; 9th, 2; 12th, 2; 22d, 6; 23d, 10; 28th, 13; 29th, 1.



## Climatological Data for May, 1917.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				No. of days.				Prevailing direction of wind.	Observer.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.			Cloudy.
Maine.																				
Bar Harbor	Hancock	20	31	46.8	-5.2	76	20	26	1	32	4.70	+1.21	0.94	.....	11	14	6	11	w.	Mount Desert Nurseries.
Cornish	York	778	62	48.9	-5.7	81	20	30	16	41	3.02	-0.90	0.80	4.5	11	6	7	18	n.	T. H. West.
Eastport	Washington	53	45	43.2	-3.7	65	19	29	1	18	1.62	-2.18	0.52	1.2	13	6	10	15	n.w.	U. S. Weather Bureau.
Farmington	Franklin	450	20	48.0	-6.1	77	31	30	8	45	2.85	-0.90	0.71	6.0	10	2	8	21	n.w.	State Normal School.
Gardiner	Kennebec	163	25	47.8	-7.5	75	20	31	4	39	2.22	-1.40	0.63	5.5	14	6	4	21	n.	Samuel D. Soule.
Greenville	Piscataquis	1,140	13	43.2	.....	73	31	27	5	40	3.22	-0.25	0.62	6.0	13	3	5	23	n.w.	U. S. Weather Bureau.
Houlton	Aroostook	362	15	45.0	.....	68	31	28	5	37	1.90	-0.28	0.42	8.0	10	6	10	15	w.	Bangor & Aroostook RR
Langtown	Franklin	1,500	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Langtown Co.
Lewiston	Androscoggin	185	34	46.7	-2.9	73	20	32	11	31	2.88	-0.54	0.69	3.5	12	5	13	13	n.w.	Union Water Power Co.
Madison	Somerset	257	14	46.6	.....	72	20	32	21	30	2.69	-1.20	1.00	.....	9	8	5	18	n.	William Jardine.
Millinocket	Penobscot	386	14	45.7	.....	72	31	23	1	41	3.59	+0.51	1.02	7.0	13	6	2	23	e.	Great Northern Paper Co.
North Bridgton	Cumberland	450	24	46.6	-8.3	75	20	28	8	32	3.75	+0.22	0.85	6.0	16	10	8	13	n.	C. L. Chadbourne.
Orono	Penobscot	129	48	48.0	-4.7	74	20	27	1	41	3.18	-0.20	1.04	3.0	11	12	13	6	n.w.	Maine State College.
Patten	do	550	15	47.8	.....	75	18	21	3	45	5.20	+2.56	1.00	6.0	8	11	4	14	sw.	Bangor & Aroostook RR
Portland	Cumberland	99	46	47.3	-6.2	79	20	32	6	29	3.19	-0.48	1.09	T.	13	8	4	19	n.w.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	8	43.3	.....	71	31	24	17	42	3.90	+0.46	0.70	10.0	13	8	8	15	ne.	E. M. Libby.
Rumford	Oxford	505	24	47.2	-6.5	73	31	34	17	36	2.85	-0.66	0.76	5.8	13	11	7	13	n.w.	Charles A. Mixer.
Van Buren	Aroostook	510	13	42.8	.....	70	31	24	17	42	2.18	-0.96	0.38	7.0	12	10	5	16	n.w.	Rev. J. M. Thomas.
Winslow	Kennebec	90	22	48.6	-5.0	78	20	24	8	44	2.17	-0.94	0.61	2.0	9	5	9	17	n.	Hollingsworth & Whitney.
New Hampshire.																				
Alstead Center	Cheshire	1,120	13	46.8	-11.1	74	19	28	6	30	3.49	+0.21	0.85	8.0	14	13	5	13	n.w.	Frank Dewing.
Bethlehem	Grafton	1,470	25	43.0	-11.0	73	31	25	16	35	2.00	-1.32	0.37	6.1	16	6	5	20	n.w.	Benjamin Tucker.
Concord	Merrimac	350	57	47.6	-8.1	79	20	32	4	40	2.92	-0.32	0.71	2.6	15	7	8	16	n.w.	U. S. Weather Bureau.
Durham	Stafford	88	22	47.0	-7.8	76	19	30	8	35	4.10	+1.22	1.50	.....	11	8	7	16	n.w.	N. H. Agr. College.
Franklin	Merrimac	440	18	48.3	-8.0	79	20	30	3	43	3.21	+0.15	0.80	3.0	19	8	9	14	n.w.	Dr. C. P. Webster.
Glencoff	Grafton	1,650	4	42.5	.....	70	19	27	16	40	3.69	.....	1.15	5.5	13	7	6	18	n.w.	State Sanatorium.
Grafton	do	863	31	45.0	-8.3	78	20	25	16	41	2.17	+0.15	0.68	4.0	9	11	4	16	n.w.	P. R. Kimball.
Hanover	do	603	83	47.2	-8.2	78	31	31	3	42	2.29	-1.00	0.53	1.7	20	1	12	18	n.	Dartmouth College.
Keene	Cheshire	506	32	48.0	-8.3	79	19	27	16	42	2.94	-0.66	0.66	0.2	14	9	9	13	ne.	Samuel Wadsworth.
Newton	Rockingham	126	29	46.7	-8.5	82	20	28	4	39	3.63	+0.31	0.87	T.	11	8	14	9	n.w.	W. C. Gale.
Plymouth	Grafton	500	29	47.1	-6.5	79	31	30	7	42	2.36	-0.86	0.68	5.0	12	9	2	20	w.	Mrs. Hattie G. Trow.
Vermont.																				
Bloomfield	Essex	.....	10	44.3	.....	77	31	25	16	45	1.62	-1.57	0.46	0.5	15	7	7	17	n.	Lyman Falls Power Co.
Burlington	Chittenden	404	10	47.0	-9.6	75	31	32	16	36	2.00	-0.83	0.67	1.0	13	4	9	18	n.	U. S. Weather Bureau.
Cavendish	Windsor	910	14	46.5	.....	78	31	24	16	46	4.24	+1.11	1.20	2.0	16	10	12	9	.....	Colonial Power Co.
Chelsea	Orange	840	22	45.4	-7.2	76	31	20	16	43	2.23	-0.92	0.88	2.0	16	6	3	22	n.	W. F. Dewey.
Cornwall	Addison	517	24	48.6	-8.4	79	20	30	16	35	2.08	-0.69	0.60	.....	13	8	4	19	n.	C. H. Lane.
Enosburg Falls	Franklin	601	26	46.8	-8.8	80	31	23	16	44	2.38	-1.23	0.62	T.	12	11	7	13	w.	J. W. Pomeroy.
Hyde Park	Lamoille	576	5	45.5	.....	77	31	24	8	44	2.00	.....	6.60	1.0	13	7	9	15	n.w.	A. V. Wiswell.
Northfield	Washington	876	31	44.2	-9.3	75	31	26	16	40	2.28	-0.52	0.52	2.6	18	3	9	19	s.	U. S. Weather Bureau.
Rutland	Rutland	562	1	47.6	.....	76	19	29	16	40	1.70	.....	0.40	.....	13	7	2	22	se.	George H. Ross.
Somerset	Windham	2,096	6	41.2	.....	72	31	20	4	34	4.89	.....	1.04	.....	21	7	8	11	n.w.	Power Construction Co.
St. Johnsbury	Caledonia	711	24	47.0	-8.1	79	21	27	8	43	1.82	-1.27	0.51	4.5	15	6	7	18	n.	Fairbanks Museum.
Vernon	Windham	310	2	48.2	-9.6	78	20	26	16	37	3.10	-0.13	0.85	.....	13	10	4	17	n.w.	Conn. River Power Co.
Wells	Rutland	750	26	45.5	-9.9	76	31	25	16	34	2.05	-1.41	0.79	.....	14	4	10	17	s.	E. R. Pember.
Woodstock	Windsor	700	25	47.3	-7.6	76	20	24	16	42	4.19	+0.82	1.55	3.0	12	6	6	19	.....	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	28	49.5	-7.5	81	19	28	4	37	4.13	+0.65	0.96	T.	11	17	7	7	n.w.	Mass. Agr. College.
Blue Hill	Norfolk	640	33	47.2	-8.3	77	20	32	5	29	5.86	+2.49	1.47	3.0	16	6	6	19	w.	Blue Hill Observatory.
Boston	Suffolk	124	47	50.7	-5.9	80	20	36	6	28	4.45	+0.94	1.40	T.	14	9	5	17	n.w.	U. S. Weather Bureau.
Chestnut Hill	do	124	37	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Met. Water Board.
Clinton	Worcester	370	21	48.8	-7.8	77	20	33	4	36	3.87	+0.09	1.30	T.	13	.....	.....	.....	.....	Do.
Concord	Middlesex	139	27	48.2	-7.8	81	20	29	4	39	4.48	+1.35	0.98	0.3	13	7	4	20	n.w.	Fred A. Tower.
Fall River	Bristol	200	51	50.0	-6.8	80	20	34	4	27	4.77	+1.01	1.32	0.2	14	4	17	10	n.w.	C. V. S. Remington.
Fitchburg	Worcester	550	34	48.8	-8.5	80	20	32	4	31	2.68	-0.69	0.46	T.	15	11	1	19	n.w.	Dr. A. P. Mason.
Framingham	Middlesex	160	37	50.9	-7.2	80	20	34	4	37	4.70	+1.28	1.69	.....	14	.....	.....	.....	.....	Met. Water Board.
Lawrence	Essex	51	33	49.2	-8.9	81	20	32	4	38	3.23	-0.18	0.95	.....	13	6	16	9	w.	Essex Company.
Lowell	Middlesex	100	32	50.4	-7.1	79	20	32	4	35	4.18	+0.68	1.29	.....	14	.....	.....	.....	.....	Props. Locks & Canals.
Nantucket	Nantucket	47	31	48.1	-4.9	68	20	34	1	21	4.22	+1.55	1.53	T.	12	6	13	12	w.	U. S. Weather Bureau.
New Bedford	Bristol	88	105	49.5	-5.2	76	20	37	4	25	5.14	+1.22	1.43	.....	13	13	7	11	n.w.	City Engineer.
Plymouth	Plymouth	50	32	47.8	.....	80	20	31	6	32	6.68	+3.44	1.85	0.5	13	14	5	12	e.	Miss L. B. Knapp.
Provincetown	Barnstable	40	30	48.5	-5.8	79	20	33	1	31	4.48	+1.36	1.40	.....	9	15	6	10	w.	Gideon Bowley.
Rockport	Essex	25	15	47.4	.....	78	20	34	4	30	4.59	+0.49	1.37	.....	12	11	17	3	n.w.	U. S. C. G. Station.
Rutland	Worcester	1,160	15	46.0	.....	74	19	30	1	32	4.13	.....	1.04	5.2	14	11	6	14	w.	State Sanatorium.
Springfield	Hampden	199	7	51.8	-7.6	81	19	32	4	32	4.66	.....	1.20	T.	14	8	10	13	n.w.	U. S. Army.
Turners Falls	Franklin	200	31	49.8	-7.8	78	20	31	4	35	4.79	+1.63	1.28	T.	15	10	8	13	n.w.	Turners Falls Co.
Westboro	Worcester	298	43	52.5	-6.1	83	20	38	4	34	4.93	+1.53	1.79	1.0	11	.....	.....	.....	.....	Miss E. W. Newcomb.
Williamstown	Berkshire	711	36	47.7	-8.8	75	19	32	4	33	3.20	-0.08	0.50	T.	17	7	10	14	n.w.	Williams College.
Worcester	Worcester	518	25	50.3	-7.4	80	19	36	3	27	2.88	-0								



Daily Precipitation for May, 1917.

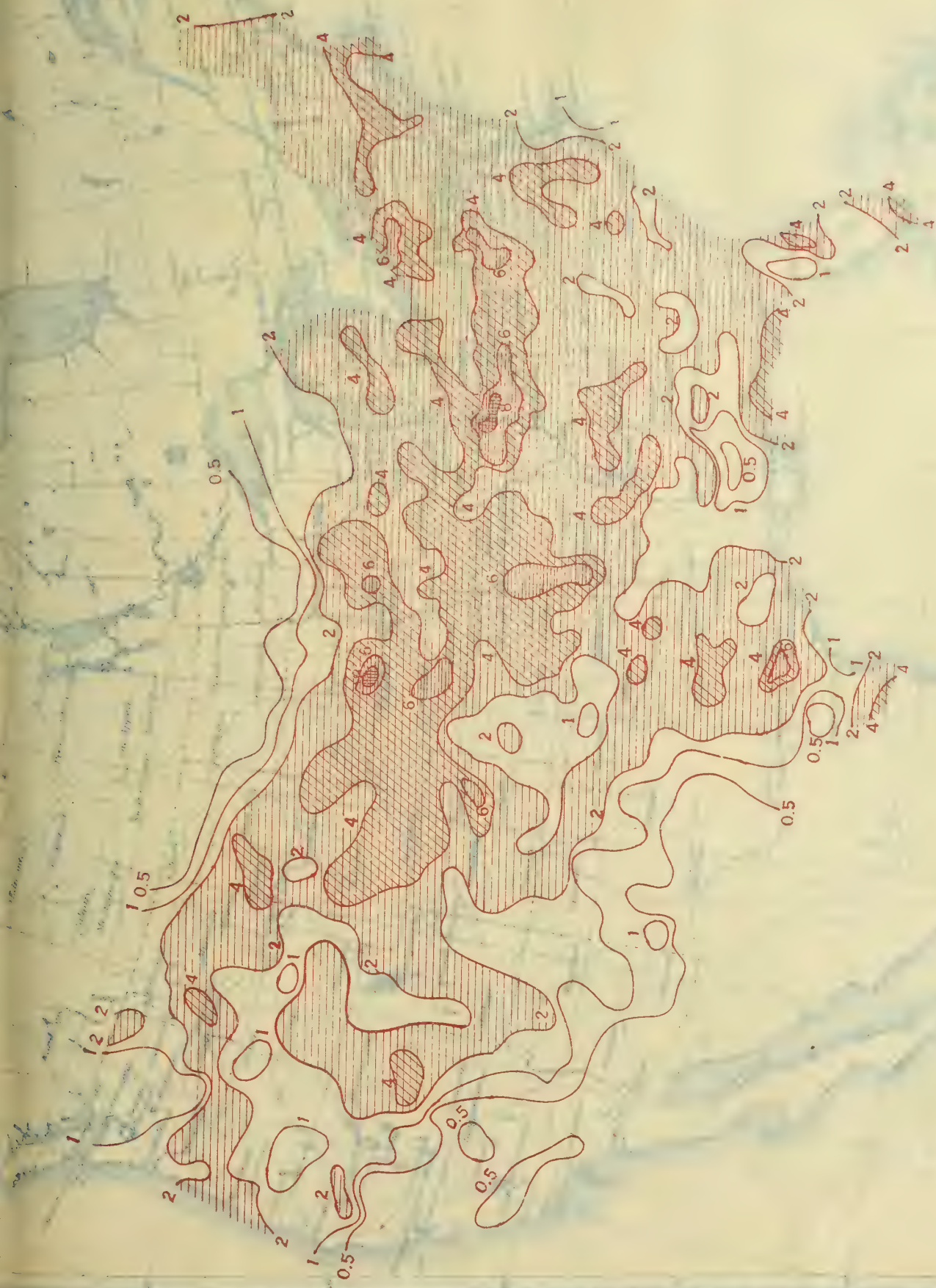
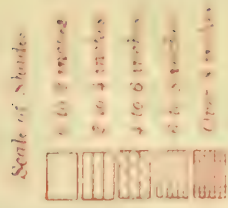
Stations.	Watersheds.	Day of month.																															Total.				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31					
Maine.																																					
Ashland	St. John	.76	.08							.05	.57	.16	.39	.05		T.	.08					.14	.01		.43	.54	.14			.16	.35		3.69				
Bar Harbor	Coast	.94	.10			.08				.31	.45	.57	.03									.27			.30					.75	.30		4.70				
Cornish	Saco	.50	.30			.30	.15			.10			T.	.14	.11						.10			T.	.24	.66	T.			T.	.52		4.12				
Danforth	Penobscot																																				
Eastport***	Coast	.15	T.	.01						.49	.11	.05	.42	.01							T.	T.	T.		.21			.15		.02	.05		.25	.08	1.62		
Eustis	Kennebec																																				
Farmington	do	T.	.65							T.		T.	.16	.24									.08	.05		.02	.71	.07			.64	.23		2.88			
Gardiner	do	T.	.63	T.			.22			.06	.01	.05		.14	T.								.02	.03	.10	.01			.01	T.		.56	.34		2.69		
Greenville***	do	T.	.60	T.	T.					.10	.38	.12	.09	.28	T.	T.	T.							.26	.04	T.	.62	.10	.10		.31	.19		3.22			
Houlton	St. John	.04																																			
Howe Brook	Penobscot										.40	.10	.04	.02										.23	T.	.40	.07		.18			.42		1.60			
Langtown	Kennebec																																				
Lewiston	Androscooggin	.25	.40			.14	.28			T.		T.	.11	.05																							
Madison	Kennebec	.67	.06							.03			.03								.07				.07	.64			.02		.69	.16		2.88			
Millinocket	Penobscot	.61	.26	.02	T.					.49	.01	.15	.28	T.									.15		.12	.46		.02			1.00	.03		2.69			
North Bridgton	Saco	.14	.60	T.		.01	.23	.01		.03		.02	T.	.12										.02	.85	.65	.70		.63		.63	.26		3.75			
Orono	Penobscot	.30								.10	.04	.07	.10	.34										.16		T.	.85	.65	.70		.63		.63	.26	3.18		
Patten	do	.60								.40	T.	.60	.40	.34										.16			.41	.04	.04			.34	.34		3.18		
Portland***	Coast	.33	.44			.20	.30			.02	T.	.06	.06										.60		1.60						1.00	.60		5.20			
Presque Isle	St. John	.70	.10							.60	.20	.20	.20	T.			.30	T.			.07		.04	T.	.52				.01		1.09	.60		3.19			
Rumford	Androscooggin	.35	.40	T.		.02	T.			T.	T.	.08	.27	.07										.25		.30	.30	.20	.10		T.	.45		3.90			
Van Buren	St. John	.38	.22	.09						.28	T.	.08	.27	.07										.05		.63	.73	.02	.07		.67	.69		2.85			
Winslow	Kennebec	.61								.04	T.	T.	.19	.12							.21			.18	.03		.34	.04	.09	T.		.20		2.18			
																										.02	.42		.03		.36	.38		2.17			
New Hampshire.																																					
Alstead Center	Connecticut	.19	.47			.52	.32	.05	T.	.03	T.	T.	.11	.05										.09	.89	T.	T.	.07	.08	.03	.63		3.49				
Bethlehem	do	.09	.37	.04			.12	.08		T.	T.	.15	.12										.10		.14									2.60			
Brookline	Merrimack	.88				1.00	.25			.12			.20	.07											.72	.05	T.		.09	.55	T.		.24	.03		3.93	
Concord***	do	.32	.30	T.		.33	.22	T.		.01		.02	.16	.01										.03		.02	.71	.06	.06		.63	T.	.64	T.		4.10	
Durham	do	.09	.91			.23	.54						.09	.04												1.50		.20			.10	.39	.01		2.92		
Franklin	do	.10	.70	T.		.08	.28		.06	.21		.07	.04	.13										.65	.06	T.		.02	.80	.02	.15		.61	.41	.01		3.21
Glencoff	do	T.	.15	T.		* .23	.23			.03		.04	.47	.60											.06		T.		* .44						3.69		
Grafton	do	.31	.45			.15	.03			.03		.07	T.																	.20		.21		2.17			
Hanover	Connecticut	.32	.23	.01		.12	.25	T.		.01	T.	.01	.09	.01										.06	.53	.03	.03	.01	.07	T.		.02		2.29			
Keene	do	.07	.45	T.		.32	.26	T.	.30	T.	T.	T.	.10	.04										.03	.01	.01		.06	.53	.03	.03	.01	.07	T.		2.94	
Newton	Merrimack	.87	T.	T.		.35	.62	T.	T.	T.	T.	.04	.16	.09											.11	.66	.01	T.	.08	.02	.53	.01		3.63			
Plymouth	do	.19	.68			.05	.27	T.		T.	T.	.08												.08	T.	.02				.57				2.36			
Vermont.																																					
Bloomfield	Connecticut	.10	.32	.12						.03	.65	.46	.10											.07	.03	.03	.16	.08	.03	.01		.03		1.62			
Burlington***	Champlain	.06	.11	.18		T.	.03			T.	T.	.32	.04	T.										.05	T.	.04								2.00			
Cavendish	Connecticut	.29	.20	.53		.45	.31	.04		.11	.09	T.	.65	T.											.10	.70	.06	.04	.04	.02	T.	1.20	.02	4.24			
Chelsea	do	.28	.22			.16	.12			.04	.02	.16	.08	T.										.03		.03	.18	.37	.05	.04		.08	.38		2.23		
Cornwall	Champlain	.10	.10	.12		.12				.05	T.	.20	.18	T.											.05		.15	.31	.05	T.	.18	.02	.60		2.08		
Enosburg Falls	do	.10	.05	.13						.05	T.	.60	.92	T.												.12	.28	.11	.19	T.		.31		2.28			
Hyde Park	do	.08	.16	T.						.05	T.	.60	.92	T.												.12	.28	.11	.19	T.		.31		2.28			
Northfield***	Champlain	.28	.22	.01		.09	T.	T.		.13	.04	.67	.06	.01										.01	T.	.12	.18	.17	.09	.16	.02	.10	T.	.52		2.00	
Rutland	do	.02	.20	.17	T.				.12			.63	.01	.04	T.									.01	T.	.12	.18	.17	.09	.16	.02	.10	T.	.52		2.28	
Somerset	Connecticut	.06	.72	.19	.02	.13	.80		.02	.09	.04	.09	.67	.33											.15	.45	.16	.21	.23	T.	.05	1.04	.18	4.89			
St. Johnsbury	do	.12	.51	T.		.05	.05			.02	.04	.14	.07	T.	T.										.03	.12		.01	.33	.04	.05	.10	T.	.15	.06	1.82	
Vernon	do	.41		.37	.28	.05	T.	.09	.16	.02	.04	.14	.07	T.	T.										.03	.12		.01	.33	.04	.05	.10	T.	.15	.06	1.82	
Wells	Champlain	.18	.16	T.		.07	.16	.06	T.	.05	T.	T.	.07	T.												.75	.06	.04			.04	.76	.02		3.10		
Woodstock	Connecticut	* .57	.32			.48		.19		.08	T.	T.	.07	T.												.07	.28	.03	.05		.03	T.	.79	.05	2.05		
													.15												.11	.51		.12			T.	1.55		4.19			
Massachusetts.																																					
Amherst	Connecticut	T.	.42			T.	.90			.02	.03		.10	.01												.65	.28			.59	.96	.17		4.13			
Ashland	Merrimack	.59				* 1.54				.05			.15	.22												* .69		.01		.47	* 1.13			4.70			
Bakers Bridge†	do	.24	.44			.90	.75			T.			.25	.25												.70		.07		.30	.15	.87		5.07			
Bedford	do	.29	.31			.63	.46			.08	T.		.29	.16												.05	.50	T.	.05		.26	.12	.87		4.07		
Blue Hill	Coast	.32	.46			1.47	.64			.27	.03	.61	.17	.16												.10	.67	T.	.04								



## Daily Temperatures for May, 1917.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean		
Maine.																																		
Bar Harbor.....	Maximum	40	43	47	53	53	48	50	55	48	50	53	52	51	65	62	50	62	64	69	76	69	56	52	61	59	60	66	64	50	46	61	56.0	
	Minimum	26	33	37	35	33	33	31	34	35	37	38	34	37	42	42	32	42	43	42	44	43	36	40	30	41	44	38	33	38	40	39	37.5	
Cornish.....	Maximum	45	49	53	67	50	47	57	62	50	57	60	57	57	70	59	30	32	39	37	55	42	39	41	41	39	40	36	35	40	41	36	37.1	
	Minimum	33	32	32	33	38	33	32	31	35	41	42	38	39	37	35	47	55	57	65	54	56	55	42	55	54	58	56	51	44	43	54	49.5	
Eastport.....	Maximum	40	42	44	48	40	44	48	51	42	45	46	44	46	58	51	47	55	57	65	54	56	55	42	40	39	39	42	39	38	39	38	37.0	
	Minimum	29	33	36	34	32	32	34	35	35	35	36	33	35	40	34	32	39	40	47	41	43	40	40	43	40	43	40	39	38	39	38	37.0	
Farmington.....	Maximum	54	41	50	52	53	55	59	63	60	58	58	45	53	63	60	58	64	65	72	72	72	72	72	72	72	72	72	72	72	72	72	72.0	
	Minimum	32	32	32	35	33	35	36	30	37	38	41	38	46	42	35	30	37	35	41	49	38	32	40	40	43	44	42	40	40	40	40	37.0	
Greenville.....	Maximum	52	34	42	49	45	51	54	54	48	44	47	47	43	52	52	46	57	60	64	42	41	59	66	49	63	60	65	61	61	61	61	61	
	Minimum	30	29	30	35	27	30	28	29	35	34	36	33	34	36	32	30	38	37	42	41	59	66	49	63	60	65	61	61	61	61	61	61	
Millinocket.....	Maximum	54	41	47	48	47	54	57	58	54	47	50	47	47	50	66	63	49	60	63	68	65	56	60	55	62	57	43	29	29	41	39	31	
	Minimum	23	31	31	34	32	32	26	30	32	37	36	35	37	38	39	33	41	33	45	46	39	32	41	42	38	58	61	61	70	66	58	72	
Orono.....	Maximum	59	52	49	53	48	48	58	62	60	47	51	40	50	66	66	51	60	67	72	74	69	63	62	61	61	41	32	34	38	39	31	36.7	
	Minimum	27	32	34	33	34	34	32	36	38	38	38	36	37	39	45	33	41	35	44	46	39	37	42	43	39	62	58	62	52	45	51	41.0	
Portland.....	Maximum	38	48	48	49	48	42	47	44	48	54	55	50	51	68	54	54	63	67	71	79	62	51	47	61	55	43	45	51	41	43	40.0		
	Minimum	34	33	35	35	38	32	37	37	37	38	43	41	40	39	41	35	35	39	45	46	50	46	44	41	43	41	44	41	40	41	41	40.0	
Presque Isle.....	Maximum	54	45	45	50	44	53	54	59	53	47	46	41	47	48	42	44	53	65	63	60	54	63	55	58	58	58	58	58	57	60	58	53.0	
	Minimum	24	30	26	34	27	36	24	27	29	35	37	35	38	35	33	30	35	30	34	43	36	32	38	39	42	36	29	33	38	29	33.0		
Rumford.....	Maximum	46	42	46	51	49	51	53	58	50	51	51	52	50	66	46	52	62	62	70	70	56	58	46	60	53	58	57	36	42	54	73	54.8	
	Minimum	34	34	34	40	38	35	36	34	38	42	42	41	40	44	38	34	44	42	46	50	41	34	43	43	43	44	38	61	48	47	37	39.7	
Van Buren.....	Maximum	53	40	45	45	45	51	55	58	51	47	45	47	49	56	58	44	54	63	55	50	60	57	55	52	50	51	55	61	64	58	70	53.3	
	Minimum	24	29	29	33	30	25	24	29	25	36	35	35	37	38	33	33	30	34	39	44	37	35	37	37	35	35	33	31	24	28	39	32.2	
New Hampshire.																																		
Alstead Center.....	Maximum	45	43	45	52	45	45	52	53	55	52	48	52	49	65	58	56	59	66	74	74	59	54	44	55	51	61	55	55	45	64	74	55.0	
	Minimum	32	31	32	31	33	30	35	39	38	39	39	38	37	42	31	28	37	40	44	54	44	44	37	34	37	48	45	41	38	43	54	38.5	
Bethlehem.....	Maximum	45	39	37	43	46	43	44	51	51	43	41	43	44	61	53	53	52	56	68	63	53	51	47	53	47	53	47	60	51	62	73	51.2	
	Minimum	33	31	31	34	31	32	29	33	35	34	33	36	37	29	25	23	23	33	36	50	35	37	41	34	34	40	37	33	40	38	34	34.7	
Concord.....	Maximum	42	50	47	55	43	44	53	58	55	54	53	54	53	67	53	58	61	67	76	79	62	51	46	58	54	63	58	57	45	63	75	56.6	
	Minimum	33	33	38	32	36	33	38	35	39	42	41	36	39	40	35	34	36	36	44	51	46	43	41	35	38	44	43	39	41	42	35	38.7	
Franklin.....	Maximum	48	48	50	55	50	50	54	62	57	53	55	55	53	68	61	59	63	67	78	79	63	56	48	60	64	65	60	63	48	65	79	58.9	
	Minimum	34	32	30	30	30	33	34	37	37	40	41	36	38	41	34	33	33	32	39	59	42	41	34	35	44	39	38	40	42	42	36	37.7	
Hanover.....	Maximum	46	46	45	50	47	49	54	60	56	52	54	55	53	66	55	58	62	62	76	74	60	52	48	55	54	61	61	64	49	66	78	57.2	
	Minimum	33	32	30	36	37	33	36	34	35	31	40	38	41	42	34	30	33	31	35	53	41	42	41	37	38	43	38	37	41	42	36	37.1	
Keene.....	Maximum	48	48	48	57	50	49	55	59	58	55	53	54	54	69	61	60	63	71	79	79	64	57	50	58	64	67	59	60	48	68	77	59.1	
	Minimum	35	32	37	35	34	35	40	35	33	42	42	42	42	42	35	22	22	29	37	52	41	45	41	37	35	43	43	48	40	43	35	36.8	
Plymouth.....	Maximum	47	46	46	55	47	51	55	60	55	50	52	54	53	64	53	55	60	63	75	75	61	55	49	61	53	63	62	62	50	65	79	57.3	
	Minimum	33	32	33	32	35	35	30	32	33	40	40	36	33	43	34	31	35	36	41	52	42	39	42	32	37	45	35	34	42	43	37	36.9	
Vermont.																																		
Burlington.....	Maximum	48	46	42	47	52	50	54	58	57	51	48	54	51	63	45	52	59	59	74	74	62	57	49	49	55	52	53	60	58	48	63	75	54.7
	Minimum	37	31	32	36	38	38	38	32	40	42	39	40	39	42	34	32	35	43	48	45	39	43	43	38	39	46	41	47	44	41	46	39.2	
Enosburg Falls.....	Maximum	52	45	49	52	54	57	58	56	52	55	49	50	49	63	61	53	60	72	69	61	58	55	58	55	52	57	62	64	59	67	80	57.4	
	Minimum	38	36	33	35	38	36	37	34	38	39	37	38	38	32	23	29	31	31	37	34	35	45	32	33	43	37	35	45	44	35	36.2		
Northfield.....	Maximum	43	43	41	46	55	47	53	56	54	48	46	49	49	60	45	52	57	60	72	67	56	47	47	53	51	59	61	60	46	52	75	53.4	
	Minimum	32	32	32	32	32	32	26	36	35	37	38	40	40	35	28	26	32	31	32	46	38	39	41	42	32	37	40	37	33	41	41	36	35.0
St. Johnsbury.....	Maximum	49	45	42	49	51	50	53	62	58	50	52	51	49	61	61	54	58	65	75	72	60	58	51	57	55	53	63	66	61	62	79	57.4	







## Daily Precipitation for May, 1917—Continued from page 38.

Stations.	Watersheds.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Rhode Island.																																	
Block Island ***	Coast	.65			.17	.91	.03			.03		T.	.09	.03			T.						.13	.02		T.		.11	.72	.12			3.01
Bristol	do	* .62				* 1.23				.15	T.		.07	T.									.07	.10	T.	.02		.45	.80	.75			5.00
Greene	do	.34				.97	.15			.03	.07		.08	.07														.29	.47	1.05			3.83
Hope Valley	do	.10	.56			.15																	.10	.02		T.		.29	.48	.08			5.48
Kingston	do	.41	.32			1.44	.15		.01	.06			.15	.02									.16	.09		T.		.20	.44	1.05			3.95
Narrag'sett Pier***	do	.20	.45			1.03	.12			.11	.04	T.	.04	.02								*	.29		T.		.60	* 1.37				4.69	
Pawtucket	do	* .70				* 1.57				.05	.01		*	.10									*	.02		T.		.44	.73	.59			3.39
Providence***	do	.53	.02		.01	.74	.06		.01	.09	T.		.01	.04								.10	.02		T.		.50	.20	.35			4.23	
Wallum Lake	do	.56				.60	.30	.20		.15	.08		.08									.91											
Connecticut.																																	
Bridgeport	Coast	.58			.07	.84			T.	.04			.18	T.			.06					.14	.52		T.		.11	.40	.61			3.55	
Canton	Connecticut	.64				.98			.02	T.			.12				T.					.11	.56	T.	T.		.28	* 1.61				4.32	
Colchester	Coast	* .47				.47				.05			.20	.17			.02					.43	.50	.01	T.		.30	.35	1.13			3.69	
Cream Hill	Housatonic.	.45	.20	T.		.70	.05		.10	.05	.02	.01	.03	.01			.10					.10	.50		T.		.28	.15	.55	.12		3.43	
Danielson	Coast	.55				.10							.12	.10								.20	.07	T.	.03		*	* 1.36				4.28	
East Hartland	do	.55				.91				T.			.10									.22	.20	T.			.28	1.28	.14			2.99	
Falls Village	Housatonic.	.43				.95		.03	.02	.01	T.	.02	.08	T.			.04					.04	.41	T.	T.		.04	.80	.16			3.66	
Hartford ***	Connecticut	.55	T.		.15	.44	.01	.01	T.	T.	T.	T.	.05	T.			.03					.04	.57	.01	T.		.28	1.11	.41			3.93	
Lake Konomocoff	Coast		.55			.45							.79									.13	.57	.14	.05		.17	1.17	.15			3.45	
New Haven***	do	.48	T.		.21	.51	.03		.01	.03	.01		.07	.01			.09	.02				T.	.04	.45	T.		.54	25	1.05			4.13	
New London	do	.01	.41			1.40							.05	.04			.07	.03				.10	.40				.17	1.17	.15			5.01	
N. Grosvenor Dale	do	.22	.51			1.08	.25						.12	.14	.13		.20					.18	.42		T.		.10	50	1.00	T.		3.14	
Norwalk	do	.35			*	.80			.05				.05	T.			T.					.18	.42		T.		.10	.50	1.00	T.		3.20	
Southington	do	.10	.20			.80	.05	T.		T.	.01		.26	.12								T.	.40	T.			.17	* 1.14				3.00	
Storrs	Coast	.32			T.	.80	.05	T.		T.			.01	.09	T.			.02				.10	.50				.17	* 1.14				3.79	
Torrington	Housatonic.	.13	.28			.80	.22			T.			.01	.09	T.			.02				T.	.04	.47	.11	T.		.24	1.31	.01			3.09
Voluntown	Coast	* .42				.82				.04			.06	.04								*	.23				.55	.31	.99			4.07	
Waterbury	Housatonic.	.42				.75	.09		.03		T.	T.		.09			.14					T.	.70										

## Special River Rainfall Stations.

Maine.																																		
Brownville	Saco	.50	.12											.15								.07			.38	.38	.05				.60	.03	1.90	
Mattawamkeag	Penobscot	.50	.38	T.	T.					1.00	.10	.05	.29	T.								.13			.55		.27				.75	.40	4.42	
West Enfield	do	.71								.80														.04							.03		1.48	
New Hampshire.																																		
Franklin Junction	Merrimack	.79				.37				.10			.10											.25	.15	.10	.10	.15		.35	.10		2.66	
Lancaster	Connecticut	.84											.18	.22								.14			.18	.42		.05		.06		2.09		
Manchester	Merrimack	.91	T.		.17	.59	.02	T.	T.	.02			.28	.04							.01		T.	.53	.07	.02	.02		.05	.90	.04		3.67	
Sewall's Falls ft.	do	.70	.01			.59				.03			.23	.02							.02			.75	.01			.05	.03	.55			3.02	
West Stewartstown	Connecticut	.49			T.					.33	.03													.21	.05	.15			.35				1.61	
Vermont.																																		
Bellow's Falls	Connecticut	T.	.53	T.		.31	.45	.02	.02		.11	T.	T.	.08								.03			.56	.08	.05	T.		.06	.86	.08		3.24
Wells River	do	.70				.32		.42			.28											.36			.40	.20			.18	.32			3.18	
White River Junc'n	do	T.	.59	.02	T.	.42	T.	.02		.02	T.	.04	.06	T.			T.				.01		T.	.40	.09	.05	.08	.05	.01	.32	.17			2.85
Massachusetts.																																		
Holyoke	Connecticut	.04	.49			.62	.24				.10	T.		.10									.15	.70	.05	T.			.19	1.20	.03		3.91	

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations.

\*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

\* Precipitation indicated in that of following day.

T. Precipitation is less than 0.01 inch rain or melted snow.  
 † Post-office addresses of these stations are as follows: Langtown, Redington, Me.; Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.; Moss Brook, Wendell Depot, Mass.; Priest Brook, Winchendon, Mass.; Sewall's Falls, Concord, N. H.

## Comparative Data for New England for May.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.								
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888....	53.6	88	18	4.49	.....	17	0	5	13	13	.....	ne.	8.8	36	e.	1903....	57.3	96	12	0.68	1.81	4	0	20	7	4	78	nw.	8.7	51	s.
1889....	59.2	98	25	3.57	.....	10	0	9	13	9	.....	sw.	8.6	50	ne.	1904....	58.8	91	20	3.52	2.64	10	0	15	8	8	65	sw.	9.2	46	w.
1890....	55.3	86	22	5.69	.....	15	0	8	11	12	.....	s.	13.3	60	ne.	1905....	54.6	85	22	1.82	1.33	10	T.	12	10	9	62	nw.	10.1	57	w.
1891....	53.9	92	22	2.18	.....	9	0	8	14	9	.....	sw.	9.3	55	sw.	1906....	55.1	96	21	4.96	3.50	11	0	12	9	10	59	sw.	9.7	60	s.
1892....	53.6	89	17	5.23	.....	15	T.	6	10	15	.....	sw.	10.8	58	e.	1907....	49.9	91	17	3.07	2.50	10	T.	9	10	12	46	nw.	10.0	50	nw.
1893....	54.9	98	25	5.32	.....	14	0	11	9	11	44	sw.	10.2	58	s.	1908....	57.2	92	21	4.70	3.16	11	T.	11	9	11	55	sw.	10.6	56	nw.
1894....	56.0	91	24	4.13	.....	11	0	10	9	12	52	sw.	10.2	51	w.	1909....	53.7	87	22	3.02	2.40	13	0	11	8	12	52	nw.	10.9	50	s.
1895....	57.2	100	21	2.52	2.51	10	0	10	12	9	61	sw.	9.8	48	ne.	1910....	54.7	92	22	2.73	1.80	12	0	10	9	12	49	sw.	9.8	39	s.
1896....	58.5	96	23	2.58	2.11	9	0	10	13	8	56	sw.	10.6	57	w.	1911....	60.6	101	16	1.15	2.00	6	0	16	8	7	61	sw.	9.4	41	w.
1897....	55.6	85	17	4.80	2.77	14	0	8	8	15	39	sw.	11.0	69	s.	1912....	56.1	88	22	5.09	2.98	13	0	11	8	12	52	sw.	10.5	50	s.
1898....	54.6	86	14	4.38	2.87	15	0	8	10	13	48	ne.	9.6	72	ne.	1913....	53.2	92	18	3.32	2.10	9	0	13	7	12	54	nw.	9.3	48	nw.
1899....	55.7	94	22	1.79	2.20	9	0	14	7	10	60	sw.	9.7	50	se.	1914....	56.8	99	21	2.15	2.64	6	T.	16	8	7	60	nw.	10.3	48	nw.
1900....	53.1	96	15	4.04	1.54	10	T.	12	10	9	53	nw.	10.5	66	nw.	1915....	52.8	86	22	2.22	2.20	10	0	12	9	10	56	nw.	10.1	50	nw.
1901....	54.6	91	24	5.83	2.30	12	0	10	8	13	42	ne.	10.3	55	e.	1916....	54.8	89	24	3.85	6.72	11	0	10	11	10	49	nw.	10.3	63	w.
1902....	54.1	92	19	2.63	2.50	10	0	14	9	8	57	nw.	10.1	52	w.	1917....	47.8	86	20	3.41	1.62	13	2.4	8	8	15	45	nw.	12.0	63	nw.



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# CLIMATOLOGICAL DATA

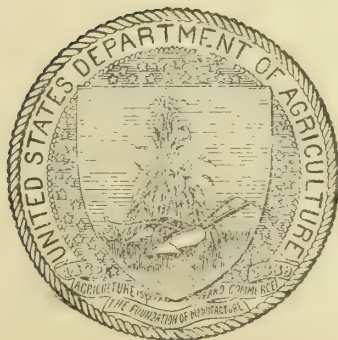
## NEW ENGLAND SECTION

JUNE, 1917

BY

JOHN W. SMITH

METEOROLOGIST



BOSTON, MASS.  
WEATHER BUREAU OFFICE

JULY 29, 1917



Departure of the Mean Temperature from the Normal, June, 1917



Shaded portions show excess (+).  
Unshaded portions show deficiency (-).  
Lines show amount of excess or deficiency.



## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

VOL. XXIX. BOSTON, MASS., JUNE, 1917. No. 6.

## GENERAL SUMMARY.

The average temperature of the month was somewhat below the normal, but the rainfall was much greater than usual, and with one exception, heavier than in any preceding June in the section record. The greatest excess was in Maine, where a number of stations reported totals for the month of more than ten inches. The storm on the 17th was particularly heavy in the eastern portion of the section, some stations in Maine having more than four inches of rainfall. Much damage was done to highways and to crops in low lands, which were covered with water, planted seed being washed out or rotting in the ground, and grass lodged. With the exception of last year, when the amount of sunshine was the same as that for the present month, the percentage of sunshine was the least of any June since 1903. Planting and the germination of seed was greatly delayed by the excessive rainfall and lack of sunshine so that at the close of the month the season was from two to three weeks later than normal.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 14 stations reporting, was 30.01 inches, which was .05 inch above the normal for the month, and .06 inch above the mean for June, 1916. The highest monthly mean was 30.03 inches, at Eastport, Me. and Nantucket, Mass.; the lowest, 29.97 inches, at Burlington, Vt. The highest recorded was 30.42 inches, at Eastport, Me. on the 11th; the lowest, 29.68 inches, at Portland, Me. on the 17th. The monthly range for the section was 0.74 inch.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 81 stations, was 63.2°, which was 2.6° above the mean for June, 1916, and the highest for the month since 1913. During the past 29 years the average June temperature has been higher in 16 and lower in 13 years than that of the present month. The highest average June temperature during this time was 68.1°, in 1892; the lowest, 59.5°, in 1903. The average temperature for the several States of the section was as follows: Maine, 60.2°; New Hampshire, 62.6°; Vermont, 62.6°; Massachusetts, 64.8°; Rhode Island, 62.1°; Connecticut, 66.1°. The average temperature for the section was 1.3° below the normal. The departures from the normal for the several States were as follows: Maine, -2.4°; New Hampshire, -1.7°; Vermont, -1.6°; Massachusetts, -0.4°; Rhode Island, -2.7°; Connecticut, -0.2°. The highest monthly mean was 68.0°, at Springfield, Mass.; the lowest, 51.5°, at Eastport, Me. The highest recorded was 92°, at Woodstock, Vt. on the 20th; the lowest, 31°, at Van Buren, Me. on the 7th. The greatest local monthly range was 55°, at Patten, Me.; the least, 27°, at Block Island, R. I. The greatest daily range was 47°, at Patten, Me. on the 25th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 14 stations reporting, was 81 per cent, which was 1 per cent above the mean for June, 1916, and 6 per cent above the normal for the month. The highest monthly average was 94 per cent, at Block Island, R. I.; the lowest, 76 per cent, at Hartford, Conn.

## PRECIPITATION.

The average for the section, as determined from the records of 81 stations, was 6.14 inches, which was 1.12 inches above the average for June, 1916, and with the exception of 6.70 inches in 1903, the greatest average June precipitation within the record of the section, beginning in 1888. The least June precipitation during this period was 0.93 inch, in 1912. The average precipitation for the several States of the section was as follows: Maine, 9.38 inches; New Hampshire, 7.19; Vermont, 4.39; Massachusetts, 5.18; Rhode Island, 3.97; Connecticut, 4.62. The average for the section was 1.49 inches above the normal for the month. The departures from the normal for the several States were as follows: Maine, +5.98 inches; New Hampshire, +3.89; Vermont, +1.35; Massachusetts, +2.20; Rhode Island, +1.21; Connecticut, +1.49. The greatest monthly amount was 12.26 inches, at Cornish, Me.; the least, 2.51 inches, at Block Island, R. I. The greatest amount in 24 hours was 4.15 inches, at Portland, Me. The average number of days with .01 inch or more of precipitation was 15, 1 less than the average for June, 1916, and 6 more than the normal number for the month.

## WIND.

The prevailing direction of the wind was from the southwest, which is the normal direction for the month, as determined from the records of the past 30 years. The greatest monthly wind movement at any station was 10,772 miles at Blue Hill Observatory, Hyde Park, Mass.; the least, 2,081 miles, at Amherst, Mass. The average hourly velocity was 9.0 miles, which was 0.2 mile below the average for June, 1916, and 0.2 mile above the normal for the month. The highest recorded velocity was 52 miles per hour from the south, at Blue Hill Observatory, Hyde Park, Mass. on the 8th. This is about the usual maximum velocity for the month.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 10; partly cloudy, 8; cloudy, 12, which compares with the normal for the month of 12 clear, 9 partly cloudy, and 9 cloudy days. The average percentage of possible sunshine, as determined from records of 11 stations having self-recording instruments, was 47, which was the same as that for June, 1916, and 13 per cent below the normal for the month, as determined from the records of the past 25 years. The greatest percentage of possible sunshine at any station was 56, at Boston, Mass. and New Haven, Conn.; the least, 38, at Block Island, R. I. The greatest percentage of possible sunshine in any June since 1893, was 78, in 1908; the least, 46, in 1893 and 1903.

## DATES OF MISCELLANEOUS PHENOMENA.

*Auroras*.—Van Buren, Me., 24; Concord, Mass., 25.

*Halos, Solar*.—Eastport, Me., 5, 7, 29; Blue Hill, Mass., 5; New Haven, Conn., 4, 23.

*Thunderstorms* (dates and number of observers reporting on each)—Maine: 3d, 7; 4th, 1; 8th, 4; 14th, 4; 20th, 5; 21st, 3; 22d, 2; 25th, 1; 27th, 2; 28th, 1; 29th, 1; 30th, 1. New Hampshire: 3d, 10; 5th, 4; 7th, 3; 8th, 5; 14th, 7; 19th, 3; 20th, 4; 21st, 2; 24th, 2; 29th, 4; 30th, 1. Vermont: 3d, 9; 4th, 1; 5th, 1; 7th, 7; 8th, 10; 9th, 1; 14th, 7; 16th, 1; 18th, 1; 20th, 8; 21st, 2; 22d, 1; 25th, 1; 30th, 1. Massachusetts: 2d, 6; 3d, 2; 4th, 1; 5th, 1; 6th, 1; 7th, 5; 8th, 9; 9th, 1; 10th, 4; 11th, 8; 12th, 5; 14th, 3; 18th, 1; 19th, 2; 20th, 2; 21st, 1; 22d, 2; 23d, 5; 24th, 22; 25th, 1; 26th, 6; 27th, 11; 29th, 2; 30th, 5. Rhode Island: 2d, 4; 7th, 2; 9th, 1; 10th, 4; 11th, 2; 24th, 6; 27th, 4; 29th, 1. Connecticut: 2d, 11; 5th, 2; 7th, 1; 8th, 8; 14th, 11; 17th, 1; 19th, 1; 22d, 1; 23d, 6; 24th, 10; 25th, 1; 26th, 9; 27th, 8; 28th, 1; 29th, 11.



## Climatological Data for June, 1917.

Stations.		Counties.		Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				No. of days.				Observer.		
						Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.	Cloudy.	Prevailing direction of wind.	
Maine.																						
Bar Harbor	Hancock	20	31	57.8		-2.3	80	13	35	1	35	10.29	+7.52	2.30	0	15	14	8	8	se.	Mount Desert Nurseries.	
Cornish	York	778	62	63.0		-2.2	88	22	41	1	38	12.26	+8.59	3.62	0	16	5	12	13	sw.	T. H. West.	
Eastport	Washington	53	45	61.5		-3.9	73	28	39	1	28	7.40	+4.16	3.13	0	18	6	10	14	s.	U. S. Weather Bureau.	
Farmington	Franklin	450	20	62.0		-0.5	75	22	40	1	34	10.74	+7.32	2.51	0	18	7	9	14	sw.	State Normal School.	
Gardiner	Kennebec	163	25	61.5		-3.7	75	27	41	1	32	8.88	+5.75	2.67	0	18	10	3	17	sw.	Samuel D. Soule.	
Greenville	Piscataquis	1,140	13	58.1			82	13	37	7	36	8.69	+5.00	2.57	0	20	9	7	14	sw.	U. S. Weather Bureau.	
Houlton	Aroostook	362	15	61.6			82	22	35	7	37	6.91	+3.62	2.40	0	10	13	6	11	w.	Bangor & Aroostook RR.	
Langtown	Franklin	1,500	1																		Langtown Co.	
Lewiston	Androscoggin	185	34	60.6		-3.8	84	27	44	1	31	11.16	+7.74	3.97	0	18	5	13	12	se.	Union Water Power Co.	
Madison	Somerset	257	14	60.5			83	23	42	1	33	9.96	+6.08	3.20	0	18	13	5	12	n.w.	William Jardine.	
Millinocket	Penobscot	3-6	14	60.6			83	13	37	7	37	9.89	+6.68	2.23	0	19	13	1	16	s.	Great Northern Paper Co.	
North Bridgton	Cumberland	450	24	61.8		-2.8	86	27	38	1	34	11.20	+7.77	2.30	0	16	8	9	13	se.	C. L. Chadbourne.	
Orono	Penobscot	129	48	61.4		-0.9	84	28	38	1	36	7.49	+4.15	1.70	0	16	16	5	9	sw.	Maine State College.	
Patten	do	550	15	60.9			80	13	35	1	37	8.90	+4.65	2.00	0	9	11	1	14	sw.	Bangor & Aroostook RR.	
Portland	Cumberland	99	46	58.2		-4.4	86	27	45	11	26	10.86	+7.50	4.15	0	13	8	4	18	ne.	U. S. Weather Bureau.	
Presque Isle	Aroostook	1,000	8	59.9			83	14	33	7	38	7.67	+4.70	1.60	0	16	10	8	12	e.	E. M. Libby.	
Rumford	Oxford	505	24	61.5		-2.1	82	27	42	1	29	10.40	+7.20	3.32	0	19	11	7	12	e.	Charles A. Mixer.	
Van Buren	Aroostook	510	13	59.3			81	14	41	7	39	7.86	+3.90	1.95	0	14	14	4	12	s.	Rev. J. M. Thomas.	
Winslow	Kennebec	90	22	62.8		+0.1	85	27	40	1	36	8.23	+5.31	3.25	0	15	10	4	16	s.	Hollingsworth & Whitney.	
New Hampshire.																						
Alstead Center	Cheshire	1,120	13	63.4		-3.9	82	20	48	12	25	8.19	+5.14	1.39	0	20	14	7	9	sw.	Frank Dewing.	
Bethlehem	Grafton	1,470	25	60.2		-3.3	81	20	44	25	28	7.02	+3.29	1.49	0	18	10	9	11	sw.	Benjamin Tucker.	
Concord	Merrimack	350	57	63.8		-0.6	88	20	45	5	35	8.30	+4.96	1.84	0	15	11	7	12	se.	U. S. Weather Bureau.	
Durham	Stafford	88	22	61.5		+2.8	87	22	41	11	36	7.52	+4.36	2.30	0	16	12	3	15	se.	N. H. Agr. College.	
Franklin	Merrimack	440	15	64.5		+1.2	88	20	43	5	38	7.51	+4.02	1.69	0	20	13	8	9	sw.	Dr. C. P. Webster.	
Glencoff	Grafton	1,650	4	60.0			82	20	44	1	34	7.26		2.72	0	16	9	9	12	n.w.	State Sanatorium.	
Grafton	do	563	31																		P. R. Kimball.	
Hanover	do	603	83	63.2		-1.8	87	20	44	5	35	6.67	+3.27	0.96	0	20	1	13	16	s.	Dartmouth College.	
Keene	Cheshire	506	32	64.2		-0.7	86	20	41	5	39	5.79	+3.03	1.44	0	19	14	7	9	sw.	Samuel Wadsworth.	
Newton	Rockingham	126	29	61.9		-2.6	86	14	45	12	33	5.87	+2.87	2.44	0	12	7	14	9	sw.	W. C. Gale.	
Plymouth	Grafton	500	29	63.2		-1.0	87	19	40	1	37	7.27	+4.06	1.09	0	19	11	3	16	w.	Mrs. Hattie G. Trow.	
Vermont.																						
Bloomfield	Essex	404	10	60.9			83	13	37	7	36	5.84	+2.06	1.06	0	20	10	7	13	s.	Lyman Falls Power Co.	
Burlington	Chittenden	404	10	62.7		-1.1	81	13	46	17	27	2.69	+0.43	1.16	0	14	6	11	13	s.	U. S. Weather Bureau.	
Cavendish	Windsor	910	14	63.2			89	20	40	5	39	4.56	+1.10	0.97	0	14	16	6	8	.....	Colonial Power Co.	
Chelsea	Orange	840	22	61.2		-0.1	86	20	42	6	39	4.81	+1.60	1.10	0	14	5	12	13	s.	W. F. Dewey.	
Cornwall	Addison	517	24	65.2		-1.9	85	23	47	1	30	3.72	+0.27	1.50	0	11	11	7	8	s.	C. H. Lane.	
Enosburg Falls	Franklin	601	26	61.8		-3.4	87	13	40	25	36	4.21	0.60	0.83	0	17	14	5	11	w.	J. W. Pomeroy.	
Hyde Park	Lamoille	576	5	62.2			85	13	44	7	34	7.59		1.75	0	16	8	2	14	s.	A. V. Wiswell.	
Northfield	Washington	562	31	60.9		-1.8	84	20	45	26	34	5.40	+2.15	1.11	0	16	2	15	13	s.	U. S. Weather Bureau.	
Rutland	Rutland	562	1	63.3			88	20	44	18	33	3.76		0.96	0	17	14	5	11	sw.	George H. Ross.	
Somerset	Windham	2,096	6	58.4			82	20	34	1	34	4.57		1.03	0	16	6	15	9	n.w.	Power Construction Co.	
St. Johnsbury	Caledonia	711	24	64.7		+0.7	87	20	46	6	32	6.13	+2.77	1.18	0	21	9	10	11	n.	Fairbanks Museum.	
Vernon	Windham	310	2	65.0		-2.8	88	22	44	5	36	4.48	+1.18	1.55	0	19	5	13	12	s.	Comm. River Power Co.	
Wells	Rutland	750	26	62.8		-2.9	84	20	44	4	32	4.04	+0.70	0.85	0	16	5	15	10	s.	E. R. Pember.	
Woodstock	Windsor	700	25	63.5		-1.5	92	20	41	27	44	5.69	+2.53	1.65	0	12	10	6	14	.....	John S. Eaton.	
Massachusetts.																						
Amherst	Hampshire	222	28	66.2		0.0	88	22	50	5	33	5.27	+2.04	1.63	0	16	12	12	6	sw.	Mass. Agr. College.	
Blue Hill	Norfolk	640	33	63.0		-1.3	83	20	45	1	27	4.77	+1.81	1.38	0	17	6	10	14	s.	Blue Hill Observatory.	
Boston	Suffolk	124	47	65.8		0.0	87	20	50	11	28	4.65	+1.02	1.47	0	13	9	9	12	sw.	U. S. Weather Bureau.	
Chestnut Hill	do	124	37	66.4		-0.5	89	20	46	1	31	3.82	+0.70	1.03	0	12	21	0	9	.....	Met. Water Board.	
Clinton	Worcester	370	21	64.4			83	20	47	12	29	4.79	+2.79		0	13				.....	Do.	
Concord	Middlesex	139	27	64.2		0.0	86	20	46	1	31	4.67	+1.75	1.24	0	15	7	10	13	sw.	Fred A. Tower.	
Fall River	Bristol	200	51	64.8		-1.0	80	22	50	1	21	4.63	+2.12	1.17	0	15	8	14	8	sw.	C. V. S. Remington.	
Fitchburg	Worcester	550	34	65.0		-1.6	87	20	47	11	29	4.78	+1.71	1.31	0	16	10	6	14	w.	Dr. A. P. Mason.	
Framingham	Middlesex	160	37	67.0		-0.1	88	20	44	1	31	4.28	+1.39		0	14				.....	Met. Water Board.	
Lawrence	Essex	51	33	64.8		+1.2	86	14	47	11	31	4.78	+1.70	1.72	0	16	5	16	9	s.	Essex Company.	
Lowell	Middlesex	100	32	66.1		-0.7	85	20	47	12	30	5.25	+2.03	1.50	0	15				.....	Props. Locks & Canals.	
Nantucket	Nantucket	47	31	60.6		-0.7	77	28	44	1	21	7.69	+5.28	1.87	0	15	5	15	10	sw.	U. S. Weather Bureau.	
New Bedford	Bristol	88	105	64.8		+0.8	80	27	51	1	21	5.80	+2.72	1.30	0	13	12	6	12	sw.	City Engineer.	
Plymouth	Plymouth	50	32	62.5			81	20	43	1	29	6.65	+3.97	2.00	0	11	16	6	8	sw.	Miss L. B. Knapp.	
Provincetown	Barnstable	40	30	63.0		-0.8	81	27	49	1	26	7.72	+5.48	2.74	0	10	17	3	10	sw.	Gideon Bowley.	
Rockport	Essex	25	15	59.2			83	27	45	12	27	7.24		3.26	0	13	14	4	12	sw.	U. S. C. G. Station.	
Rutland	Worcester	1,160	15	63.0			88	20	46	10	26	4.46		0.81	0	17	19	2	9	sw.	State Sanatorium.	
Springfield	Hampden	199	7	68.0		-2.2	88	22	51	1	29	3.11	-0.58	0.72	0	15	11	8	11	sw.	U. S. Army.	
Turners Falls	Franklin	290	31	65.8		-0.4	85	20	48	5	32	6.23	+3.15	0.93	0	17	5	10	15	n.w.	Turners Falls Co.	
Westboro	Worcester	298	43	67.7		+0.1	87	20	52	1	24	4.33	+1.34	1.67	0	10				.....	Miss E. W. Newcomb.	
Williamstown	Berkshire	711	36	64.2		-1.4	83	20	48	5	30	3.52	+0.09	0.63	0</							



Daily Precipitation for June, 1917.

Stations.	Watersheds.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Maine.																																	
Ashland	St. John			.50	.02	.09	.01		.05	.16	.01	1.18	.81				.24	1.67	.95		.12	T	.03		.01				.26	.44		6.64	
Bar Harbor	Coast			.25					.40	.20	.25	1.95	2.30				.21	.45	1.19	.60		.20		.63		.26	.03			.69		10.14	
Cornish	Saco	.12		.52		.10		.32	.90		.90	1.47	.67				.91	.33	.36			.20				.36	.05				.10	1.20	
Eastport**	Coast	T	T	.26	T		.03	.02	.29	.01	.01	.51	.71	.01	.01	.03	.71	.3	.02	.01	T				1.17	.02	.03	.05		1.24		12.46	
Eustis	Kennebec	.04		.49	.01			.02	.02	.20	.13	.32	1.62	.88	.01	.31	.08	.63	1.23	1.18		.20	.27		.45	.02		.02		.43	.16	7.12	
Farmington	do	.14		.22				.02	.04	.16	.65	2.61	1.60			.18	.38	.55	2.45	.47			.11	.67	.34				.23	.69		10.54	
Gardiner	do	.02	T	.22	.07		.01		.22	.32	.58	1.32	.57			.19	.34	2.67	.90						.34	.01		.01		.15	.54	8.88	
Greenville**	do	.04		.21		T	T	T	.03	.24	.24	2.14	.40	.01	.01	.24	.57	2.57	.55		.29	.02	T	.25			.05	.60	.50	.27		8.40	
Houlton	St. John			.17		.55			.18	.09		.87	1.00				.27	2.40							.02					1.36		6.91	
Howe Brook	Penobscot																																
Langtown**	Kennebec																.09	1.30	1.50		.50	.15			.35	.04				.53	.18		
Lewiston	Androscoggin	.08		.44		.08	T	.18	.55	T	.98	1.16	1.71		.15	.04	.37	.97	.12		T				.52		.01	.01		.73	.65	11.16	
Madison	Kennebec	.06		.17		.04		.06	.09		1.83	1.37	.78		.53	.36	1.93	1.62			.05		.04	.07	.17		.12			.07		9.64	
Millinocket	Penobscot	T		.26		.17		.02	.16	.39	1.18	1.28	.43		.02	.17	.38	2.23	T				.33		.27	.59	.03	.52		.85		1.89	
North Bridgton	Saco	.12	T	.25				T	.43	.10	1.15	1.49	1.65		.91	.28	.55	.30	.04					.62	T	.65			1.03	.20		11.20	
Orono	Penobscot			.25					.43	.11		1.00	1.50		.14	.22	.08	.48	.65		.65		.08		.23	.12		.68		.86		7.26	
Patten	do				.60							1.00	1.00	1.50			T	1.00		2.00				.40			T		.40	1.00		8.50	
Portland**	Coast	.06	T	.86		.24		.35	T		.96	1.45	.50		T	.02	.46	4.14		T	T	T			.68	.04	T		1.16		10.86		
Presque Isle	St. John			T	.40	.05	.05		.05	.15	T	.72	1.15	.10			.15	1.60	1.12	T	.13	1.00		T	T		.20		.20	.50		7.67	
Rumford	Androscoggin	.15		.36				.09	.12	.03	1.47	1.41	.93		.62	.05	.39	2.92	.59		.18	.07	.10		.26		T	T		.06	.50	10.40	
Van Buren	St. John			.78	1.05	.56			.06	.24	T	.18	.84	.09	*	T	1.95	.96						.80					.15	.45		7.86	
Winslow	Kennebec	*		.20				.11	.17		*		2.91	*		.34	3.25								.40	.65		.02		.16	.59	8.23	
New Hampshire.																																	
Alstead Center	Connecticut	.07		.32		1.39	.18	.26	.27		.19	.45	1.37		.26	.07	.41	1.02	.04	.03		T			.90	.17	.04			.32	.54		8.19
do	do	.04	.02	.21			T	.09		.19	.08	.42	.61	.69		.37	.02	.24	1.49	.71		.1.18			.44	T	.02	T		.24		7.02	
Brookline	Merrimack			.25		.35						.43	1.05	.37			.35		2.00				T		.35	.02	T		.32		5.57		
Canaan**	do	.01		.89		.71	.01	.55	.22			.40	1.47	.65		T	.54	1.81		.1.02				.69		.01			.19		8.30		
Danbury	do	.07		.20			.12	.01	.50		.48	.60	1.16		.45	.62	.51	2.30	.57	.18			.20	T				.35		7.52			
Franklin	do	.06		.12		.07	.22	.04	.11	.54	.57	.55	.97		.19	.01	.11	1.69	.25			T			.79	.02	.67		.01	.18		7.51	
Gloucester	do	.11		.15		T		.12	.80		.11	.51	1.49		.44		.08	2.72							.42	.02	.69		.17	.04		7.76	
Granby	do																																
Hanover	Connecticut	.12	.01	.14		.06	.02	.09	.95	.19	.63	.88	.64		.22	.05	.91	.01	T		.06	T			.96	T	T	.03		.64	.66	6.67	
Kew	do	.02	T	.12		.28		.23	.35		.16	.55	1.44		.20	.05	.37	.69	.03	.07				.55	.08	.02			.52	.08		5.79	
Newton	Merrimack	.05	T	.10		.19		.04			.60	.43	.91		T		.42	2.44				.24		.29				1		.16		5.87	
Plymouth	do	.08		.40		T	.03	.08	.62	.26	.58	.74	1.07		.66		.18	1.05	.14		.09			.94	T	.14	.05		.54	.28		7.27	
Vermont.																																	
Bloomfield	Connecticut	.09	.02	.34	.03			.07	.47	.06	.31	.27	.70		.22		.67	.73	.78		.19	.04			.33				.03	1.76	.63	5.84	
Burlington**	Champlain	T		.04		T		.34	.41	.02	.45	1.04	.26		.28	.01	.12	.1		T	.04			.23		T			.43	.02		3.69	
Cavendish	Connecticut			.09		T	.07	.00	T		.45	.97	.20	T	.10	T	.07	.45	T	.06				.87	T	.04			.28	.31		4.56	
Chelsea	do			.16		.02		.04	1.10		.45	.77	.43		T		.10				.02			.37	.03	.02			.52			4.81	
Concord	Champlain	T		.10		.05		.20			.45	1.50	.75		.15	.05	T				.02			.40		.05						4.72	
Elizabethtown	do	.01		.28	T	.03		.04	.50	.02	.30	.70	.83		.28		.18	.08			.07			.10	T	.22			.53	.14		4.21	
Hyde Park	do		.01	.20				.21	.18	.12	.48	1.27	.83		.25		.24	.50	.09		1.75			.37					.88	.21		7.59	
Northfield**	Champlain	T		.20		.01		.80	.59	.02	.45	.91	.24		T	.02	.11	.63	.01		.61			.41		.01			1.00	T		5.10	
Rutland	do		.03	.22				.90	.35	.10	.15	.73					.15	.02	.01	.02		.02		.53	.01	T	.02		.15	.29		3.76	
Southwest	Connecticut	T	.16	.10	.12	T	.75	.30	.73		.08	.32	.25				.12	.05					1.03		.03	.10			.13	.50		4.57	
St. Johnsbury	do	.04	.04	.59		.01	.13	.49	.14	.31	.51	1.18			.04		.06	.39	.84	.02	.19	T		.49		.02	.02		.69	.05		6.13	
Wilmington	do		.02	.18		.16	.14	.64	.02	.02	.09	1.55			.25	.24	.15	.01					.44		.13	.03		.01	.40		4.48		
Wellington	Champlain	.05		.03			.07	.28	.85	.18	.23	.67	.23		T		.03	T		.05	.08			.77	.11	.66			.35	T		4.04	
Woodstock	Connecticut	.06		.07				.51	.46		*	1.25			.42		T	.4			.03			.96	T			.12		.56		5.69	
Massachusetts.																																	
Amburst	Connecticut			.03		.24	.13	.60	.06		.29	.60	1.10		.21	.05	.12	.44				T			.40	T	.17	.18		.68		5.27	
Ashland	Merrimack	*	.06			.04		* .09	.23	.63	* .7	.79			.09	* .1.46							.25		.62	.24			.13	.02		4.65	
Bakers Bridge II	do							.10		.35	.60	.53			.09	.30	1.45						.52		.15		.11				4.20		
Bedford	do	T	T	.07			.11	.13	.07		.37	.60	.01		.09	.31	1.41						.58	.13	T	.06		.12			4.46		
Blue Hill	Coast	T	.18	.01			.04	.02	.09	.06	.45	.33	.98		.16	.21	1.38	.03	T				.52	T	T	.14		.02	.15		4.77		
Boston**	do	T	.06	T		T	.05	T	.06	.11	.54	.72	.13		T	.																	



### Stations.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean	
Maine.																																	
Bar Harbor.....	Maximum...	57	49	51	73	77	76	66	56	63	60	47	49	80	77	68	60	76	72	57	70	74	78	79	70	74	79	78	76	72	.....	67.7	
	Minimum.....	35	41	45	43	53	51	56	44	44	47	45	44	45	46	47	52	48	46	46	46	48	50	51	51	52	58	58	50	51	49	.....	47.9
Cornish.....	Maximum.....	72	76	64	79	82	79	60	68	80	60	52	65	84	87	76	70	63	83	84	79	83	88	81	62	76	76	85	82	63	80	.....	74.7
	Minimum.....	41	48	52	53	41	55	47	47	50	50	47	45	45	55	53	53	59	68	62	60	58	57	50	59	68	69	62	73	62	63	.....	58.5
Eastport.....	Maximum.....	48	44	48	72	57	65	59	47	54	52	46	48	66	50	57	53	45	46	44	43	44	41	42	47	54	47	48	53	48	47	.....	44.5
	Minimum.....	39	40	40	44	43	44	44	43	43	44	44	43	43	42	46	45	45	42	43	43	41	42	47	54	47	48	53	48	48	47	.....	43.3
Farmington.....	Maximum.....	67	76	66	75	76	78	67	62	74	66	55	58	84	74	77	68	55	54	48	53	50	53	54	44	46	50	57	52	53	.....	50.6	
	Minimum.....	40	46	53	53	45	59	41	47	54	54	47	46	52	54	56	57	59	72	78	73	74	80	69	60	68	74	78	68	64	.....	67.6	
Greenville.....	Maximum.....	64	72	64	68	72	67	65	64	65	59	51	54	82	75	72	63	51	50	41	50	56	58	54	43	46	42	55	55	49	50	.....	48.6
	Minimum.....	41	43	51	40	53	43	37	46	51	51	45	44	46	53	52	53	61	74	81	80	78	80	74	69	72	77	82	75	72	.....	71.6	
Millinocket.....	Maximum.....	70	74	70	71	72	71	73	62	64	60	55	54	83	78	73	69	56	50	51	56	54	57	43	49	43	27	57	47	46	.....	49.5	
	Minimum.....	39	44	52	54	47	45	37	48	52	52	42	46	46	49	52	54	57	58	81	79	81	81	72	77	83	84	75	75	.....	73.3		
Orono.....	Maximum.....	74	69	68	74	74	75	77	63	62	65	60	53	82	82	67	74	65	48	49	52	51	56	50	48	44	57	58	52	50	.....	49.9	
	Minimum.....	38	44	50	52	33	52	42	46	51	49	44	46	49	52	54	57	58	81	79	71	77	62	72	70	86	75	62	76	.....	64.9		
Portland.....	Maximum.....	55	53	55	71	67	68	56	55	61	53	48	56	67	62	67	58	52	56	55	52	51	54	60	53	47	55	60	62	53	.....	50.5	
	Minimum.....	45	46	46	54	51	58	46	46	48	46	45	46	57	52	54	53	64	67	80	74	69	76	78	80	74	72	69	70	.....	70.5		
Presque Isle.....	Maximum.....	75	68	65																													







## Daily Precipitation for June, 1917—Continued from page 45.

Stations.	Watersheds.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
<i>Rhode Island.</i>																																	
Block Island ***	Coast	T.						.11			.28	.55	.14			.18	.12	.26		T.					.05	T.		.40		.38	.04		2.51
Bristol	do	T.	.36				.09	*	.06	.08	*	1.58	.37			*	1.19								.02			.45		*	.05		4.25
Greene	do	T.	.37	.10		.11		.12		.04	.49	.43	.31			.17	.39	.81							.17			.57			.16		4.27
Hopkinton	do	T.	.19	1.00	T.		.03	.20	T.	.01	.68	1.10	.03	T.	T.	.25	.42	.50						T.	.72								5.13
Kingston	do	T.	.40			.01	.21		.08	1.30	1.59					.23	.26	.52						.10			.45		.10				5.25
Narragansett Pier ***	do	T.	.04			.01	.18			1.03	.92	.07				.13	.19	.50						.16			.12		.03	.10			3.51
Pawtucket	do	T.	.16			.09	.35			*	1.21	.88				*	38	1.06		T.				.23			.52		.10				5.01
Providence ***	do	T.	.23			T.	.15	.05	T.	.01	1.02	.89	.07			.26	.11	.61						.22			.05	.53		.09	.01		4.33
Wallum Lake	do	T.	.10	.45					.14	T.	.69	.89				.20	.59	.73						.30			.70		.10				5.06
<i>Connecticut.</i>																																	
Bridgeport	Coast	T.	.13				T.	.09		.02	T.	.33	.01		.13	.19	T.	.17		.13				T.	T.	.74		.40		1.11			3.48
Canton	Connecticut	T.	.57	T.			T.	.31	T.		.11	.42	.88		1.53	.07	.14	.11						T.	.38			1.91		.38			6.81
Colchester	Coast	T.	1.05			.08	.08	.03			.06	.84	.30			.08	.41	.38						.15	.35		.173		1.65				6.22
Cream Hill	Housatonic	.05	.10		.30	.10	.05	.12	.07	.05	.45	.05				.55	.45							.40		1.00		.15					5.16
Danielson	Coast	.70					.20	T.			.54					.01	.16	1.00						.11		.49		.26					4.80
East Hartland	Housatonic	.06	.04		.23	.18		.34		.23	1.80		.02	.74	.09	.14	.05							T.	.33		1.20		1.00				4.75
Falls Village	Coast	.04	.06		.22	.12		.12		.08	.16	.04		.15	.55									T.	.18		1.20	.22	.19				4.02
Hartford **	Connecticut	T.	.70	T.		.01		.11	.23	.03	.11	.25	.09		.35	.13	.03	.19						.37		.44		.48					3.46
Lake Konomoc **	Coast	.06	.11	T.		T.	.10	.06	.01		.08	.42	.01	.01	.03	.25	.08	.18						.35		.38		.30					4.25
New Haven ***	do	.05	.90			.02	T.	.02	.55	.95						.06	.62	.94						.21		.72		.08					5.16
New London	do	.31	T.			.40	.26		.64	.92						.50	.05							.75		.24		1.38					3.78
N. Grosvenor Dale	do	.15	.07		.03		.10		.05	.20	.13					.30	.05							.05		.120		.10	T.				2.70
Norwalk	do	T.	.20	T.			T.	.08	T.	.05	.20	.65	T.	.45	.05	T.	.50	.33						.35		1.00		.10					4.05
Southington	Coast	T.	.45			.11	.10			.85	.13					.07		.50	.33					.20			.2.63		.11	.45			6.93
Storrs	Housatonic	.85	.01		.01	.39	.03	.08	.01	.31	1.27	.02	.40	T.	*	*	*	.94						.23			.65		.15				4.54
Torrington	Coast	.80			.13	.10		.06	*	1.43	*													.33									3.51
Voluntown	Housatonic	.10	.11		.12	.12	T.	.01	.09	.21	.10			.18	.14	.02	.26																

## Special River Rainfall Stations

<i>Maine.</i>																																	
Brownville	Saco																																
Mattawamkeag	Penobscot																																
West Enfield	do																																
<i>New Hampshire.</i>																																	
Franklin Junction	Merrimack																																
Lancaster	Connecticut																																
Manchester	Merrimack																																
Sewall's Falls **	do																																
West Stewartstown	Connecticut																																
<i>Vermont.</i>																																	
Bellow's Falls	Connecticut																																
Wells River	do																																
White River Junction	do		.11		.03		.09	T.	.20	1.13	.69	.43	1.34			1.16	.05	.01	.91	.05						.20		.15		.13	.48		6.56
<i>Massachusetts.</i>																																	
Holyoke	Connecticut																																

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \* Precipitation is less than 0.01 inch rain or melted snow. \*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight. \* Precipitation indicated in that of following day.

† Post-office addresses of these stations are as follows: Langtown, Redington, Me.; Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.; Moss Brook, Wendell Depot, Mass.; Priest Brook, Winchendon, Mass.; Sewall's Falls, Concord, N. H.

## Comparative Data for New England for June.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.								
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888...	61.1	101	27	2.80		10	0	9	16	5		sw.	8.1	48	sw.	1903....	59.5		21	6.70	5.15	13	0	8	16	46	se.	8.3	72	e.	
1889...	65.1	98	28	3.70		11	0	7	12	11		sw.	8.6	42	sw.	1904....	63.1	98	30	3.06	6.15	9	0	13	6	11	51	sw.	7.9	42	nw.
1890...	61.0	94	26	3.04		10	0	9	12	9		nw.	8.8	46	ne.	1905....	62.3	95	26	4.51	3.74	12	0	10	9	11	57	sw.	8.0	47	nw.
1891...	65.8	99	27	3.16		9	0	9	11	10		w.	8.9	40	ne.	1906....	64.2	98	29	4.13	3.03	11	0	12	9	9	58	sw.	8.2	55	nw.
1892...	68.1	98	30	3.92	2.46	13	0	8	9	13		sw.	9.7	46	ne.	1907....	62.2	101	30	3.60	5.51	10	0	12	9	9	56	sw.	8.3	53	ne.
1893...	65.2	99	31	2.72	3.34	10	0	10	12	16		sw.	8.3	46	ne.	1908....	65.7	96	24	1.75	2.14	5	0	20	7	3	78	sw.	8.9	44	w.
1894...	66.1	98	29	1.52	2.30	9	0	11	8	11	58	sw.	9.7	37	w.	1909....	64.9	100	20	2.58	2.49	8	0	15	10	5	63	sw.	9.4	48	ne.
1895...	67.2	99	33	2.81	2.93	9	0	11	9	11	56	sw.	8.1	37	ne.	1910....	62.5	92	27	3.67	2.30	11	0	12	9	9	53	nw.	8.9	55	ne.
1896...	63.7	96	32	2.73	2.59	9	0	10	11	9	57	sw.	9.9	34	e.	1911....	63.1	92	32	2.94	2.41	10	0	12	8	10	55	nw.	8.9	46	w.
1897...	60.7	92	30	1.62	4.12	10	0	10	9	11	48	nw.	10.4	68	n.	1912....	63.0	97	27	0.93	1.42	6	0	18	8	4	73	sw.	10.6	46	n.
1898...	61.5	93	31	2.69	3.27	10	0	11	10	9	50	w.	9.5	50	ne.	1913....	63.5	95	27	1.28	1.89	5	0	14	9	7	60	nw.	9.8	52	nw.
1899...	66.4	99	30	2.88	3.50	8	0	13	12	5	62	nw.	9.5	47	sw.	1914....	62.7	97	24	2.32	2.24	8	0	14	9	7	56	s.	8.8	49	ne.
1900...	65.7	105	32	2.74	2.72	8	0	15	9	6	63	sw.	9.6	51	w.	1915....	62.5	94	28	2.08	1.19	9	0	12	11	7	56	s.	8.8	49	ne.
1901...	65.9	104	30	1.96	3.30	7	0	16	8	6	65	sw.	8.7	48	e.	1916....	60.6	89	26	5.02	2.81	16	0	9	9	12	47	nw.	9.2	57	w.
1902...	61.3	94	20	1.30	4.00	11	0	12	9	9	55	sw.	9.3	55	n.	1917....	63.2	92	31	6.14	4.15	15	0	10	8	12	47	sw.	9.0	52	s.



U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

NEW ENGLAND SECTION

JULY, 1917

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BY  
JOHN W. SMITH  
METEOROLOGIST

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
AUGUST 20, 1917



Departure of the Mean Temperature from the Normal, July, 1917





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

VOL. XXIX.

BOSTON, MASS., JULY, 1917.

No. 7.

## GENERAL SUMMARY.

July, for the section as a whole, was somewhat warmer than normal, and deficient in rainfall. The temperature, during the first half of the month was moderate, except on the 2d and 3d, when maxima near 90° prevailed. The last half of the month was decidedly warmer, with maximum temperatures above 85° during the greater portion of the period, the warm wave reaching its height on the 30th and 31st, with temperatures of 98° to 100° over a large part of the section. The rainfall was the least for any July for a number of years. While rain was normally frequent during the month it was unevenly distributed, some stations having more than four inches and others but little more than one inch. Thunderstorms were frequent during the last 10 days of the month, and were of marked severity in some localities with lightning of great intensity, heavy rain, high winds and hail. During a storm on the 21st at North Bridgton, Me., 3.11 inches of rain fell between 3 p. m. and 6 p. m., and at Holyoke, Mass., 4.67 inches in two and one-half hours. Severe hailstorms, with high winds, occurred in parts of the Connecticut Valley, seriously damaging growing crops.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 13 stations reporting, was 29.95 inches, which was normal for the month, and .04 inch below the mean for July, 1916. The highest monthly mean was 29.97 inches, at Nantucket, Mass., Block Island, R. I. and New Haven, Conn.; the lowest, 29.93 inches, at Eastport, Me. The highest recorded was 30.28 inches, at Portland, Me. and Concord, N. H. on the 25th; the lowest, 29.55 inches, at Burlington, Vt. on the 30th. The monthly range for the section was 0.73 inch.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 79 stations, was 70.4°, which was 0.1° below the mean for July, 1916. During the past 29 years the average July temperature has been higher in 8 and lower in 21 years than that of the present month. The highest average July temperature during this time was 72.6°, in 1911; the lowest, 66.0°, in 1891. The average temperature for the several States of the section was as follows: Maine, 68.9°; New Hampshire, 69.8°; Vermont, 69.3°; Massachusetts, 71.9°; Rhode Island, 69.5°; Connecticut, 72.1°. The average temperature for the section was 1.3° above the normal for the month. The departures from the normal for the several States were as follows: Maine, +1.8°; New Hampshire, +1.0°; Vermont, +1.5°; Massachusetts, +1.5°; Rhode Island, -0.6°; Connecticut, +1.6°. The highest monthly mean was 74.7°, at Westboro, Mass.; the lowest, 58.4°, at Eastport, Me. The highest recorded was 102°, at Bridgeport, Conn. on the 31st; the lowest, 42°, at Chelsea, Vt. on the 6th and Somerset, Vt. on the 3d and 5th. The greatest local monthly range was 52°, at Chelsea, Vt.; the least, 33°, at Block Island, R. I. The greatest daily range was 46°, at Patten, Me. on the 30th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 13 stations reporting, was 82 per cent, which was 2 per cent below the mean for July, 1916, and 5 per cent above the normal for the month. The highest monthly average was 94 per cent, at Block Island, R. I.; the lowest, 76 per cent, at Providence, R. I.

## PRECIPITATION.

The average for the section, as determined from the records of 79 stations, was 2.51 inches, which was 2.62 inches below the average for July, 1916, and the lowest average for the month since 1910. During the past 29 years the average July precipitation has been greater in 26 and less in only 3 years than that of the present month. The greatest average July precipitation during this time was 7.61 inches in 1889; the least, 2.19 inches, in 1909. The average precipitation for the several States of the section was as follows: Maine, 3.18 inches; New Hampshire, 2.04; Vermont, 3.11; Massachusetts, 1.72; Rhode Island, 1.73; Connecticut, 2.91. The average for the section was 1.23 inches below the normal for the month. The departures from the normal for the several States were as follows: Maine, -0.46 inches; New Hampshire, -1.57; Vermont, -1.24; Massachusetts, -1.73; Rhode Island, -1.52; Connecticut, -1.13. The greatest monthly amount was 6.97 inches, at Greenville, Me.; the least, 0.68 inches, at Winslow, Me. The greatest amount in 24 hours was 4.08 inches, at Greenville, Me. on the 30-31st. The average number of days with .01 inch or more of precipitation was 10, which was 3 less than the average for July, 1916, and 1 more than the normal number for the month.

## WIND.

The prevailing direction of the wind was from the southwest, which is the normal direction for the month, as determined from the records of the past 29 years. The greatest monthly wind movement at any station was 11,452 miles at Blue Hill Observatory, Hyde Park, Mass.; the least, 2,133 miles, at Amherst, Mass. The average hourly velocity was 8.7 miles, which was 0.3 mile below the average for July, 1916, and 0.4 mile above the normal for the month. The highest recorded velocity was 48 miles per hour from the southwest, at Nantucket, Mass. on the 13th. This is about the usual maximum velocity for the month.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 12; partly cloudy, 11; cloudy, 8, which compares with the normal for the month of 12 clear, 10 partly cloudy, and 9 cloudy days. The average percentage of possible sunshine, as determined from records of 11 stations having self-recording instruments, was 56, which was 10 per cent above the average for July, 1916, and 8 per cent below the normal for the month, as determined from the records of the past 25 years. The greatest percentage of possible sunshine at any station was 69, at Burlington, Vt.; the least, 42, at Hartford, Conn. The greatest percentage of possible sunshine in any July since 1894, was 68, in 1894 and 1904; the least, 46, in 1897 and 1916.

## DATES OF MISCELLANEOUS PHENOMENA.

*Halos, Lunar.*—Boston, Mass., 1, 29.

*Auroras.*—Eastport, Me., 29, 31; Millinocket, Me., 31; Burlington, Vt., 22.

*Thunderstorms* (dates and number of observers reporting on each): Maine—2d, 1; 5th, 1; 6th, 3; 12th, 2; 13th, 3; 14th, 3; 15th, 2; 16th, 1; 17th, 1; 18th, 3; 19th, 8; 20th, 4; 21st, 9; 22d, 8; 23d, 9; 24th, 3; 27th, 8; 30th, 8; 31st, 4. New Hampshire—2d, 4; 13th, 4; 14th, 2; 15th, 6; 16th, 1; 17th, 1; 18th, 2; 19th, 7; 20th, 2; 21st, 3; 22d, 4; 23d, 3; 24th, 8; 27th, 9; 30th, 3. Vermont—5th, 2; 7th, 1; 12th, 1; 13th, 1; 14th, 4; 15th, 9; 17th, 1; 18th, 7; 19th, 8; 20th, 5; 21st, 8; 22d, 6; 23d, 1; 24th, 2; 27th, 5; 29th, 1; 30th, 4; 31st, 2. Massachusetts—2d, 12; 3d, 5; 11th, 2; 12th, 1; 13th, 9; 14th, 4; 15th, 3; 17th, 2; 18th, 5; 19th, 7; 21st, 6; 23d, 1; 24th, 12; 25th, 1; 27th, 20. Rhode Island—12th, 1; 13th, 2; 14th, 3; 17th, 1; 19th, 2; 20th, 1; 23d, 1; 24th, 4; 27th, 3. Connecticut—2d, 9; 3d, 2; 4th, 2; 12th, 3; 13th, 4; 14th, 9; 15th, 7; 17th, 6; 18th, 6; 19th, 1; 20th, 1; 21st, 6; 22d, 1; 23d, 4; 24th, 10; 25th, 1; 27th, 7; 29th, 3.



## Climatological Data for July, 1917.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				No. of days.				Observer.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.		Cloudy.	Prevailing direction of wind.
Maine.																				
Bar Harbor	Hancock	20	31	66.8	+1.2	88	26	48	8	30	3.56	+0.63	2.00	0	10	26	2	3	w.	Mount Desert Nurseries.
Cornish	York	778	62	71.6	+2.6	95	26†	50	6†	38	1.48	-2.48	0.50	0	10	11	12	8	sw.	T. H. West.
Eastport	Washington	53	45	58.4	+1.4	84	31	45	23	32	1.90	-1.52	0.55	0	11	5	14	12	s.	U. S. Weather Bureau.
Farmington	Franklin	450	20	70.1	+2.7	94	26	47	6	38	2.55	-0.97	0.73	0	11	7	14	10	sw.	State Normal School.
Gardiner	Kennebec	163	25	70.8	0.0	93	31	53	6†	32	2.25	-0.99	1.07	0	7	15	10	6	sw.	Samuel D. Soule.
Greenville	Piscataquis	1,140	13	66.4		90	26	48	5	32	6.97	+2.73	4.08	0	17	12	14	5	w.	U. S. Weather Bureau.
Houlton	Aroostook	362	15	69.4		90	26	49	29	32	3.69	+1.13	0.78	0	9	17	8	6	w.	Bangor & Aroostook RR.
Langtown	Franklin	1,500	1	68.8		90	25†	44	7	40	4.68		1.64	0	12	9	17	5	sw.	Langtown Co.
Lewiston	Androscoggin	185	34	70.9	+1.4	94	26	54	9	32	4.34	+0.79	1.88	0	10	12	17	2	sw.	Union Water Power Co.
Madison	Somerset	257	14	71.0		96	27†	51	6	37	2.37	-1.70	1.07	0	10	19	8	4	w.	William Jardine.
Millinocket	Penobscot	286	14	68.5		93	26	48	6	35	2.26	+0.64	1.10	0	13	13	8	10	w.	Great Northern Paper Co.
North Bridgton	Cumberland	450	24	70.8	+1.8	97	31	49	6	33	4.28	+0.21	3.11	0	12	8	17	6	se.	C. L. Chadbourne.
Orono	Penobscot	129	48	70.0	+2.7	91	26†	49	6†	35	4.05	+0.80	1.92	0	11	24	4	3	sw.	Maine State College.
Patten	do	550	15	68.8		94	23†	44	6†	46	3.60	-0.21	1.00	0	6	16	1	9	se.	Bangor & Aroostook RR.
Portland	Cumberland	99	46	68.8	+0.8	92	31	54	12	26	1.92	-1.33	0.58	0	12	10	8	13	s.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	8			93	6	51	6	29	1.94	-1.87	0.42	0	13	19	6	6	nw.	E. M. Libby.
Rumford	Oxford	505	24	70.7	+2.4	93	6	51	6	29	1.94	-1.87	0.42	0	13	19	6	6	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	13	66.8		91	26	43	5†	41	2.74	-0.81	0.59	0	14	17	11	3	sw.	Rev. J. M. Thomas.
Winslow	Kennebec	90	22	72.0	+3.5	97	4	50	6†	43	0.68	-2.87	0.30	0	4	14	12	5	sw.	Hollingsworth & Whitney
New Hampshire.																				
Alstead Center	Cheshire	1,120	13	69.6	-2.1	91	30†	50	1	27	2.72	-1.56	0.57	0	14	17	10	4	sw.	Frank Dewing.
Bethlehem	Grafton	1,470	25	67.2	+0.1	92	30	47	5	33	2.39	-1.35	0.70	0	12	17	9	5	sw.	Benjamin Tucker.
Concord	Merrimac	350	57	71.4	+2.3	98	30	51	6	33	1.27	-2.52	0.85	0	7	12	16	3	sw.	U. S. Weather Bureau.
Durham	Stafford	88	22	70.8	+0.9	93	30	49	29	36	1.28	-1.74	0.58	0	8	16	11	4	sw.	N. H. Agr. College.
Franklin	Merrimac	440	18	71.1	+1.2	95	30	48	6	36	2.92	-0.37	1.66	0	12	15	9	7	w.	Dr. C. P. Webster.
Glencoff	Grafton	1,650	4	66.8		91	30	49	5	28	2.77		0.90	0	13	18	8	5	nw.	State Sanatorium.
Grafton	do	863	31											0	10	3	14	14	s.	P. R. Knaball.
Hanover	do	603	23	70.4	+1.2	98	30	47	5†	37	1.48	-2.00	0.52	0	10	3	14	14	s.	Dartmouth College.
Keene	Cheshire	566	32	70.3	+2.0	95	30	47	11	35	2.27	-0.97	0.48	0	12	11	13	7	sw.	Samuel Wadsworth.
Newton	Rockingham	126	29	70.4	+1.2	97	30	46	6	35	1.31	-2.03	0.66	0	6	11	15	5	sw.	W. C. Gale.
Plymouth	Grafton	500	29	69.7	+2.1	92	30†	47	4†	36	2.04	-1.60	0.52	0	9	17	6	8	w.	Mrs. Hattie G. Trow.
Vermont.																				
Bloomfield	Essex	10	10	67.4		90	23†	43	5	38	3.38	-0.84	0.64	0	16	14	8	9	s.	Lyman Falls Power Co.
Burlington	Chittenden	401	10	70.9	+2.7	91	30	50	5	28	1.88	-1.90	0.43	0	15	8	14	9	s.	U. S. Weather Bureau.
Cavendish	Windser	910	14			91	30	50	5	28	1.88	-1.90	0.43	0	15	8	14	9	s.	Colonial Power Co.
Chelsea	Orange	849	22	68.5	+1.3	91	25†	42	1	43	2.32	-0.56	0.68	0	8	12	11	8	s.	W. F. Dewey.
Cornwall	Addison	517	24	71.8	+0.9	98	30	48	4	38	2.15	+1.54	1.00	0	6	14	8	9	s.	C. H. Lane.
Enosburg Falls	Franklin	601	26	70.2	+2.6	95	30	46	6	40	6.62	+1.39	1.89	0	15	19	10	2	sw.	J. W. Pomeroy.
Hyde Park	Lamoille	576	5	69.6		95	30	45	5	41	6.45		1.43	0	15	11	13	7	w.	A. V. Wiswell.
Northfield	Washington	576	21	67.6	+1.2	94	30	44	5	38	3.08	-0.62	1.06	0	13	2	22	7	s.	U. S. Weather Bureau.
Rutland	Rutland	562	1											0	16	8	21	2	sw.	George H. Ross.
Somerset	Windham	2,096	6	64.0		93	31	42	3†	32	4.01		1.06	0	16	8	21	2	sw.	Power Construction Co.
St. Johnsbury	Caledonia	711	24	71.0	+2.9	97	30	48	5†	39	3.10	-0.99	0.64	0	14	13	15	3	sw.	Fairbanks Museum.
Vernon	Windham	310	2	72.0	+0.7	98	30†	48	6	34	1.16	-3.34	0.74	0	6	13	7	11	se.	Conn. River Power Co.
Wells	Rutland	750	26	69.5	+0.5	90	30†	50	5†	30	2.70	-1.20	0.62	0	12	7	18	6	s.	E. R. Pember.
Woodstock	Windser	700	25	69.1	+0.8	94	30	44	6	41	1.83	-2.07	0.51	0	6	8	13	10		John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	28	72.5	+2.0	98	31	52	6	33	3.36	-0.84	1.42	0	8	13	17	1	sw.	Mass. Agr. College.
Blue Hill	Norfolk	610	33	70.2	+1.0	96	30	49	10	25	0.85	-3.17	0.38	0	9	9	9	13	sw.	Blue Hill Observatory.
Boston	Suffolk	124	47	73.3	+2.0	98	30†	56	10	25	1.10	-2.26	0.73	0	7	10	15	1	sw.	U. S. Weather Bureau.
Chestnut Hill	do	124	37	73.4	+1.4	98	30	53	10	30	1.00	-2.51	0.50	0	5	26	0	5		Met. Water Board.
Clinton	Worcester	370	21	71.6		94	30†	54	10	23	1.28	-1.78	1.12	0	5					Do.
Concord	Middlesex	139	27	71.4	+1.5	97	30	50	6	30	1.95	-1.33	1.34	0	5	11	10	10	sw.	Fred A. Tower.
Fall River	Bristol	200	51	71.8	+1.1	95	31	54	10	26	1.21	-1.83	0.45	0	9	5	20	6	sw.	C. V. S. Remington.
Fitchburg	Worcester	550	34	71.8	+1.3	97	31	53	6	31	2.11	+1.64	1.02	0	6	14	6	11	w.	Dr. A. P. Mason.
Framingham	Middlesex	160	37	74.0	+2.7	98	30†	53	10	28	1.15	-2.27	0.88	0	6					Met. Water Board.
Lawrence	Essex	51	33	72.9	+0.3	98	30	53	10	30	1.93	-1.71	0.78	0	7	8	17	6	s.	Essex Company.
Lowell	Middlesex	100	32	73.4	+1.9	98	31	54	6†	29	1.68	-1.61	1.38	0	7					Props. Locks & Canals.
Nantucket	Nantucket	47	31	67.5	0.0	90	31	54	12	21	3.52	+0.64	1.94	0	10	5	14	12	sw.	U. S. Weather Bureau.
New Bedford	Bristol	88	105								0.93	-2.30	0.91	0	9	15	7	9	sw.	City Engineer.
Plymouth	Plymouth	50	32	69.2		91	30	51	10	23	2.23	-0.87	1.23	0	5	11	10	10	sw.	Miss L. B. Knapp.
Provincetown	Barnstable	40	30	70.2	+0.5	92	30	55	10†	25	1.33	-1.10	0.34	0	9	19	6	6	sw.	Gideon Bowley.
Rockport	Essex	25	15	68.6		97	30	54	10	29	1.00		0.51	0	7	16	8	7	sw.	U. S. C. G. Station.
Rutland	Worcester	1,160	15	70.3		93	31	51	9	30	1.53		0.85	0	8	17	8	6	sw.	State Sanatorium.
Springfield	Hampden	199	7	74.0	+0.8	99	30†	55	6	30	3.72	-0.96	2.53	0	11	9	10	12	sw.	U. S. Amory.
Turners Falls	Franklin	200	31	72.2	+2.3	96	31	52	6	30	2.39	-1.24	0.58	0	9	9	9	13	sw.	Turners Falls Co.
Westboro	Worcester	298	43	74.7	+2.6	97	31	57	10	25	1.11	-2.22	1.05	0	2					Miss E. W. Newcomb.
Williamstown	Berkshire	711	36	70.0	+1.4	93	31	50	5†	28	2.11	-2.18	0.70	0	10	13	5	13	sw.	Williams College.
Worcester	Worcester	518	25	73.5	+2.1	95	31	58	11†	24	1.12	-2.62	0.72	0	5	9	13	9	sw.	G. W. Swan.
Rhode Island.																				
Block Island	Newport	26	37	68.4	+0.3	89	31	51												



Daily Precipitation for July, 1917.

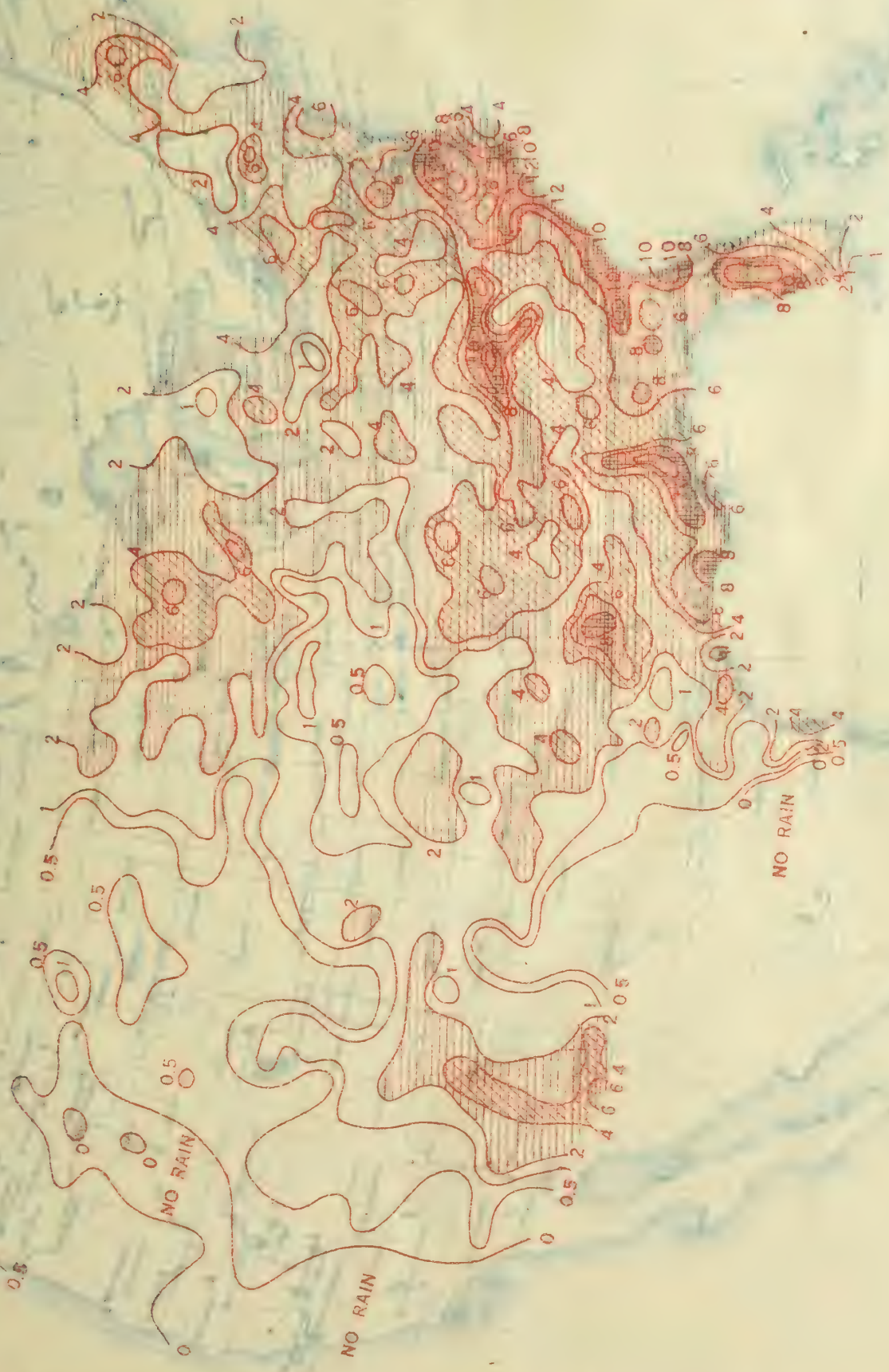
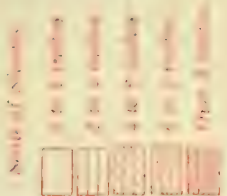
Stations.	Watersheds.	Day of month.																																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Maine.																																			
Ashland	St. John	.05				.49	.07						.65		.26		.51	.02	.09	.21	.04	.15	.12	.86										3.52	
Bar Harbor	Coast		.03								.20	.03	.92	.10	.02				.02			.02												3.06	
Cornish	Saco	.05	T			.09						.38		.01								.10	.10		.02	.12		.11						1.75	
Eastport***	Coast		.04	T			.07			T		.09	.01	.45	T	.02																		1.66	
Eastis	Kennebec		.13			.06						.01	.01	.32	.01	.04	T	.55	T		.04	.41	.01	.18	.08	.10								3.55	
Farmington	do	T			T	T	T				T	.05	.40	.11	.14	.04	T	T		.05	.73		.03	.14										2.55	
Gardner	do		.06									.39								.06			.12											2.55	
Greenville***	do	T	.20			.10	.15				.09	T	.23	.31	.46	.01	.02		.01	.69	.06	.13		T	.41								0.57		
Houlton	St. John			.70			.05					.63		.72			.42			.01	.27	.10			.78									2.09	
Howe Brook	Penobscot																																		
Lewtown	Kennebec		.10				.04							.30		.14	.17			.04	.07	.32		.17	1.00		.63							4.08	
Lewiston	Androscoggin	.03	.02								T	.14	.19	T						.19			.12	1.88		.08					1.68			1.61	
Madison	Kennebec										.15	.34	.03	.46	.07					.04	.03	T		.16	.02							1.07		2.57	
Millinocket	Penobscot		.07			.01				.19		.43	.05		.13	.05		.01		.09	1.01	.07		.02	1.10									1.26	
North Bridgton	Saco	T	.08			.01					T	.01	.10	T		.02				.11	.08		.34		.01				.38					4.28	
Orono	Penobscot		.02			.05					.29		.77	.07			.14			.05				.30		.21								4.05	
Patten	do											.49								.20	.60				1.00									3.10	
Portland***	Coast	.03	.01			.24						.08	.26		.01					.04	T		.01	.07		.58								1.92	
Presque Isle	St. John																																		
Rustford	Androscoggin	T	.06			.05					T	.13	.29	.03	.28	T	T			.06	.31	.05	.12	.09	.10	T								1.94	
Van Buren	St. John	.12	.04	.05		.43	.18					.89	.08	.10	.21	.13	T						.15	.19	.15									2.74	
Winslow	Kennebec			.03									.39																					0.65	
New Hampshire.																																			
Alstead Center	Connecticut	T	.42	.01					T	T	T	.24	T	.42	.09	.12	.57	.02	T	.21	.12	.30	.09	.02		.08						T		2.72	
Bethlehem	do	.14	.04			.01							.36	.38	.22			T		.23	.22			.08										3.09	
Brookline	Merrimack	T	T									.90		.16	T				.27							.05								1.49	
Canaan***	do	T	.13									.85			.02	T			.02		.07	.02												1.27	
Durham	do		.12	.06								.58			.08					.19	.02													1.28	
Franklin	do	T	.03									.04	.47		.05	.04				.08	.06	.08												2.52	
Glendon	do	.23				.03					T		.60	.19	.27	.19		.15	.03	.10			.04											2.77	
Grafton	do																																		
Haverover	Connecticut	T	T			.04	T	T				.06	.52	.21	.07	.27	.01	T	.19	.10		T	T	T		T			.01	T		T		1.38	
Keene	do	.01	.23	.10							T	.21	.36		.08	.48				.20	.11	.30				.08								2.57	
Newton	Merrimack	T	.05									.48		T					T		.07		.03			.02								2.11	
Plymouth	do	.06										.05	.57	T	T	.05					.07				.1	.21			.06					2.54	
Vermont.																																			
Bloomfield	Connecticut	.30	.10						.02				.27		.10	.21	.03	.17	.11	.02	.47	.64	.41											3.28	
Burlington***	Champlain	.16	T			.01	.06			.03	.07	.16	.27	.01	.14	T	.01		.27	.01	T	.38	T											1.38	
Cavendish	Connecticut	T									T	.56	T		.07	.12			.06	.07	.04	.54	.02											1.32	
Chelsa	do	.04										.69		.06	.18	.12						.68		.42										2.52	
Cornwall	Champlain		.15			T					T	T				.10	.09	T			.15													2.15	
Enosburg Falls	do	.78	.08		.02	T					T	.02	.63	.29	.13	.02				1.89	.18	.23	.05	.58										6.62	
Hyde Park	do	.19	.25		.08							.05	.18	.05	.14	1.05	.32			.14		1.43	.17	.44										4.45	
Northfield***	Champlain	.08	.01		.18					T	.02	.25	.31		.01	.02		.02	.12	.40														4.08	
Rutland	do																																		
Somerset	Connecticut	.02	.27	.05						.04		.03	.67	.39		.30	.13		.21	.03	.57		.65		.06	.09								4.01	
St. Johnsbury	do	.07	.24		.06						T		.45		.17	.28	.05		.07	.01	.60		.28											3.10	
Verion	do	.12	.01									.74	.01	.03					.08	.18														1.16	
Wells	Champlain	.04			.03							.12	.62	.21	.18	.74			.13	.77		.05												2.70	
Woodstock	Connecticut	T									.48			.05			.81		.31				.16											1.83	
Massachusetts.																																			
Amherst	Connecticut		.06								T		.95	T	.01	.10	.08		.74	T	T		1.42		.06									3.26	
Ashland	Merrimack		.11	.06								.86			.02		.08		.01															1.66	
Bakers Bridge	do		T									.75	.35	.05																				1.54	
Bedford	do		.03	T								.60	.23	.28	T				.03															1.41	
Blue Hill	Coast	T	.03	.06	.16						.02	.68	.04	.07	T	.01					T													0.85	
Boston***	do		.01	.01	.06							.22	.01	.06	T						T													1.10	
Brookton	Coast																																		
Chestnut Hill	do	.04	.12	.11								.23																							1.60
Clinton	Merrimack		T	.03	T							.12	.12								.01													1.28	
Concord	do		.08	T								.84	.50	.06	T																			1.65	
Fall River	Coast	T		.30	.15							.16	.08	.08	.08	.03				.31														1.27	
Fitchburg	Merrimack		T							T	T	.74	.16			.02				.07		T			1.02									2.11	
Frammingham	do		.04		.11							.88	.02							.05															



## Stations.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean		
Maine.																																		
Bar Harbor .....	Maximum .....	79	78	78	78	78	80	78	74	65	61	61	66	72	69	81	82	86	82	81	84	78	86	86	74	80	88	84	78	75	75	86	77.5	
Bar Harbor .....	Minimum .....	54	56	52	58	53	56	48	50	52	56	55	52	52	53	52	62	60	70	65	55	57	58	52	58	60	60	57	57	58	62	56.1		
Cornish .....	Maximum .....	81	85	87	85	81	82	88	83	72	77	67	85	78	85	85	85	84	85	87	81	90	92	90	85	89	95	91	81	86	95	89	84.9	
Cornish .....	Minimum .....	53	51	62	51	56	50	53	55	51	57	50	57	56	59	56	56	64	65	67	59	62	62	62	64	64	68	53	61	62	68	58.2		
Eastport .....	Maximum .....	75	59	58	63	70	73	72	66	62	69	63	62	58	60	66	66	78	59	74	73	66	69	65	74	68	63	74	69	76	72	84	67.6	
Eastport .....	Minimum .....	45	18	46	48	48	50	49	45	46	51	52	51	48	48	47	48	53	49	48	59	48	59	48	45	52	52	49	49	56	54	52	49.3	
Farmington .....	Maximum .....	80	86	76	81	80	85	88	83	75	74	64	74	82	78	83	79	88	85	86	86	88	89	85	80	94	87	89	77	73	93	85	87.3	
Farmington .....	Minimum .....	57	57	59	52	53	47	50	50	50	54	57	56	54	58	55	55	65	63	60	60	63	62	62	62	62	68	55	55	55	65	65	65.3	
Greenville .....	Maximum .....	73	80	79	73	72	76	81	80	68	67	65	67	74	69	77	74	85	80	79	81	81	81	79	87	90	78	71	74	69	84	77.7	76.6	
Greenville .....	Minimum .....	36	51	53	53	48	49	49	49	50	54	51	54	54	51	53	58	57	61	66	58	60	62	60	59	54	61	68	56	52	58	65	56.3	
Millinocket .....	Maximum .....	76	79	81	79	78	79	85	82	74	68	66	69	75	79	78	86	80	82	84	81	85	85	80	83	93	84	77	77	76	91	79.7	79.7	
Millinocket .....	Minimum .....	56	59	59	54	51	48	50	54	59	58	56	55	49	54	53	56	61	62	62	61	63	64	61	63	54	63	61	57	55	54	67	57.5	
Orono .....	Maximum .....	79	87	81	81	80	83	87	87	71	71	67	70	78	84	88	87	85	82	85	86	87	85	85	82	91	91	87	78	76	88	81.8	81.8	
Orono .....	Minimum .....	59	59	54	59	58	49	52	49	50	57	56	56	57	57	56	57	58	64	64	61	61	61	61	55	59	67	54	55	58	65	58.1	58.1	
Portland .....	Maximum .....	78	84	82	72	75	77	76	74	62	62	60	68	75	78	78	80	82	80	87	83	85	76	66	75	85	84	77	83	80	92	77.7	77.7	
Portland .....	Minimum .....	37	61	65	59	57	56	57	57	55	56	54	54	58	59	64	60	61	64	65	67	63	61	55	55	62	61	64	62	64	62	66	60.0	
Presque Isle .....	Maximum .....	76	81	81	81	80	83	81	72	70	64	72	78	77	79	76	85	82	83	84	81	88	87	83	88	93	87	76	80	80	89	80.5	80.5	
Presque Isle .....	Minimum .....	60	60	61	56	54	51	54	55	54	47	59	60	58	61	60	58	60	68	62	62	65	66	67	70	67	66	68	69	65	68	60.9	60.9	
Rumford .....	Maximum .....	74	83	83	74	73	78	78	73	78	73	78	80	74	76	76	76	76	76	76	76	83	80	83	80	76	87	81	84	85	80	85	78.3	78.3
Rumford .....	Minimum .....	55	52	55	50	47	51	63	55	59	56	55	59	54	54	53	52	56	56	53	65	68	60	53	53	52	51	61	63	55	43	48	53.8	
New Hampshire.																																		
Alstead Center .....	Maximum .....	72	81	72	78	75	79	77	78	71	63	65	68	79	76	75	77	75	78	78	82	82	87	89	83	85	85	88	71	85	91	61	78.6	78.6
Alstead Center .....	Minimum .....	50	62	63	56	55	53	55	56	57	58	54	54	60	58	63	57	60	60	81	81	84	86	89	80	86	87	90	78	72	92	86	77.9	77.9
Bethlehem .....	Maximum .....	66	79	76	77	73	78	81	80	69	69	63	63	64	75	74	75	80	81	81	84	86	89	80	84	86	89	80	71	72	92	86	77.9	77.9
Bethlehem .....	Minimum .....	55	55	50	48	47	48	48	56	56	53	49	55	53	57	55	55	61	61	58	59	61	62	63	57	67	69	53	56	63	66	56.6	56.6	
Concord .....	Maximum .....	79	86	80	82	80	82	84	80	72	73	64	72	83	79	79	81	82	82	86	88	91	91	88	81	92	89	78	83	98	95	83	83.5	83.5
Concord .....	Minimum .....	55	65	13	55	51	52	57	56	54	56	56	54	59	57	59	53	59	66	66	63	66	61	66	63	64	64	65	61	60	65	71	60.1	60.1
Franklin .....	Maximum .....	76	85	81	82	81	83	87	83	79	80	65	73	81	78	80	82	81	84	82	89	89	91	93	88	88	92	87	78	81	95	93	83.5	83.5
Franklin .....	Minimum .....	55	60	60	51	51	48	51	55	56	54	57	55	54	55	60	54	57	61	65	58	63	59	61	64	63	64	70	57	58	64	71	58.7	58.7
Hanover .....	Maximum .....	74	84	87	78	78	81	84	82	77	71	67	84	80	78	80	82	82	83	81	85	86	92	94	90	91	92	88	77	80	98	96	81.7	81.7
Hanover .....	Minimum .....	54	61	55	49	47	49	57	59	55	59	55	61	57	56	55	56	63	62	57	57	61	66	63	62	67	67	64	56	61	71	58.2	58.2	
Keene .....	Maximum .....	78	85	78	82	80	82	83	81	74	73	66	71	82	80	77	81	76	81	82	85	85	90	92	84	89	88	87	75	77	95	94	81.7	81.7
Keene .....	Minimum .....	47	63	61	60	49	47	48	53	58	51	58	55	63	57	60	53	57	63	60	67	60	62	64	60	70	72	57	57	62	70	58.9	58.9	
Plymouth .....	Maximum .....	75	83	80	80	78	84	82	80	71	72	69	71	82	80	81	78	80	81	81	81	81	85	90	91	86	85	90	89	78	92	92	81.4	81.4
Plymouth .....	Minimum .....	53	59	57	47	47	48	49	54	57	54	55	57	57	54	55	54	55	64	62	57	59	58	65	65	64	66	68	60	57	65	74	58.0	58.0
Vermont.																																		
Burlington .....	Maximum .....	71	82	78	71	71	78	81	81	69	73	71	79	79	76	75	79	81	82	80	85	83	90	92	81	89	89	80	74	75	94	88	79.8	79.8
Burlington .....	Minimum .....	57	67	57	56	50	51	53	67	62	57	60	58	62	62	61	61	59	66	65	65	68	66	68	68	66	74	63	58	61	68	69	62.0	62.0
Enosburg Falls .....	Maximum .....	73	82	78	72	77	80	87	84	77	75	75	78	79	79	80	78	85	85	82	84	83	89	91	87	91	91	83	75	78	95	87	81.7	81.7
Enosburg Falls .....	Minimum .....	55	54	57	49	47	46	47	62	61	57	60	58	50	56	56	60	56	63	62	69	61	64	63	62	69	66	60	56	59	63	66	58.6	58.6
Northfield .....	Maximum .....	72	81	75	71	72	77	82	80	71	70	66	71	79	77	77	77	81	81	80	82	85	89	89	84	90	80	82	73	77	94	89	79.5	79.5
Northfield .....	Minimum .....	51	62	49	48	43	45	44	55	57	54	57	56	55	57	51	56	55	61	63	54	59	60	62	61	61	64	56	52	55	65	62	55.9	55.9
St. Johnsbury .....	Maximum .....	74	85	83	78	77	82	88	86	80	78	70	73	80	78	79	78	85	85	83	86	87	89	94	88	92	90	78	81	97	94	94	83.6	83.6
St. Johnsbury .....	Minimum .....	56	60	59	59	48	48	49	56	58	57	56	58	60	58	57	56	56	65	67	65	60	64	65	61	65	69	52	54	65	66	58.5	58.5	
Wells .....	Maximum .....	76	78	76	75	80	80	82	80	75	72	70	78	75	76	75	76	78	78	88	82	84	88	82	87	85	84	75	79	80	89	79.2	79.2	
Wells .....	Minimum .....	52	64	60	53	50	51	60	61	58	58	55	56	56	58	60	60	60	65	69	65	65	63	66	70	55	58	55	58	65	72	59.9	59.9	
Massachusetts.																																		
Amherst .....	Maximum .....	78	89	88	82	84	85	84	81	71	66	70	83	81	78	83	79	82	81	87	82	89	93	88	89	88	79	79	79	96	98	83.1	83.1	
Amherst .....	Minimum .....	55	65	65	62	54	52	56	57	61	51	51	56	63	62	62	56	58	65	60	66	69	66	62	67	68	68	78	63	68	75	61.7	61.7	
Blue Hill .....	Maximum .....	75	85	77	74	79	78	79	78	62	64	53	69	80	76	71	79	80	83	78	81	76	88	85	72	87	88	76	78	96	95	78.9	78.9	
Blue Hill .....	Minimum .....	57	64	65	63	50	60	63	60	55	49	53	62	62	63	62	68	66	66	66	66	68	64	68	58	57	64	68	61	65	71	78	62.3	62.3
Boston .....	Maximum .....	81	90	82	74	71	79	76	76	65	69	64	76	85	71	77																		







## Daily Precipitation for July, 1917—Continued from page 53.

Stations.	Watersheds.	Day of month.																															Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
<i>Rhode Island.</i>																																		
Block Island ***	Coast			.66	.16					T.		.33	.02	.10	.20	.09				1.24	.10													2.9
Bristol	do			*	.39							.42		.33	.03	T.	.04		T.		.31							.39		.08			1.1	
Greene	do				.69																												2.1	
Hope Valley	do																																1.1	
Kingston	do			.80								.45		.15	.10	.03					.06	.02					T.		.10				1.1	
Narrag'sett Pier***	do			.35	.32					.05		.06	.13	.16	.02	.17		T.	T.	T.	.09	.25					.03		.04				1.1	
Pawtucket	do	T.	T.	T.	.46							.55	T.	T.	.06	T.	T.	T.	T.	T.								.02		T.			1.1	
Providence***	do	T.	T.	T.	.10	.21				T.		.42	.05	.01	.30	T.		T.		T.					.09	.10				T.			1.1	
Wallum Lake	do			.20								1.00	.45			.10																	1.1	
<i>Connecticut.</i>																																		
Bridgeport	Coast		T.	.74	.41						.15	1.18		.10	.15	.22		T.	T.	T.									T.	.02			2.9	
Canton	Connecticut	T.	.51	T.						T.	T.	.93	.18		.08	.01		.27	.05		.03				1.55				.05	T.			3.2	
Colchester	Coast				.55					T.	T.	T.	.99		.21			.12	T.	T.					.62				.18	T.			3.2	
Cream Hill	Housatonic	T.	.25								.02	.80	.05	.21	.03	.30		.02	.60	.01		.28			1.10				.30	.01			2.2	
Danielson	Coast		.20	.30								.10	.50												1.25								2.2	
East Hartland			.06									.08			.36	.10		.58	.04	.08									.02				1.4	
Falls Village	Housatonic	T.	.14							.02	.08	.76	T.		.12	.03		.58	T.		T.				T.	.05			.05	T.			4.0	
Hartford ***	Connecticut	T.	.91	.15	.01				T.		.01	1.20	T.		.03	.04		.63	.26	T.		T.			1.41								2.2	
Lake Konomocit	Coast			.81								.90	.18	.12	.25																		3.3	
New Haven ***	do		.09	.38	.32				T.	T.	.04	1.04	.05	T.	.27	.05		.01							.68				.41	.01			2.2	
New London	do			.65								1.39	.03	.04	.33																		1.2	
N. Grosvenor Dale	do			.15	.11						T.	.15	.36												.63								3.1	
Norwalk	do		.06	.33	1.29							1.13				.10	.03		.16	T.													4.4	
Southington	do			.10	.05						T.	.73	.05	T.	T.	.05	T.	T.	T.	T.													2.2	
Storrs	Coast		1.00	.02						.02	T.	.06	.80	.09	T.	.14	.29	T.	.21	.06	T.	.03	.23		1.42				.90		T.		4.4	
Torrington	Housatonic		.02									*				.23	.03	T.															2.2	
Voluntown	Coast			*	.30							*		.67	.05						.02												1.7	
Waterbury	Housatonic			.29	.01						.05	.67	.07	.01		.11		.02	.01	.08	T.		.08					.06	T.	.24	T.		1.7	

## Special River Rainfall Stations.

Maine.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					</
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Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

T. Precipitation is less than 0.01 inch rain or melted snow.

†† Post-office addresses of these stations are as follows: Langtown, Redington, Me.; Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.; Moss Brook, Wendell Depot, Mass.; Priest Brook, Winchendon, Mass.; Sewall's Falls, Concord, N. H.

## Comparative Data for New England for July.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.		
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.
1888	66.8	94	32	2.38		10	0	12	10	9		sw.	1903	68.0	100	34	3.67	2.66	12	0	12	11	8	53	sw.
1889	68.4	97	33	7.61		11	0	7	9	15		sw.	1904	68.6	98	39	2.95	2.97	11	0	13	11	7	68	sw.
1890	68.1	100	35	3.13		10	0	10	12	9		sw.	1905	69.9	98	38	3.63	4.47	11	0	13	11	7	63	sw.
1891	66.0	101	35	3.91		12	0	10	11	11		sw.	1906	69.1	97	35	4.64	3.30	12	0	12	10	9	56	sw.
1892	70.0	102	24	2.91		11	0	11	11	16		sw.	1907	69.0	105	38	3.02	3.00	10	0	13	11	7	64	sw.
1893	68.2	98	36	2.27		10	0	13	13	5		sw.	1908	71.6	101	34	3.61	3.42	9	0	14	11	6	66	sw.
1894	71.0	106	38	3.06	2.34	7	0	13	12	6		sw.	1909	67.2	100	30	2.19	3.09	8	0	16	10	5	66	sw.
1895	67.0	98	31	3.86	4.13	12	0	10	13	8		sw.	1910	70.6	99	38	2.39	2.44	7	0	18	9	4	66	sw.
1896	70.0	96	39	3.66	2.24	13	0	9	10	10		sw.	1911	72.6	106	40	3.95	4.85	8	0	17	9	5	65	sw.
1897	70.6	102	40	5.97	8.11	12	0	9	10	12		sw.	1912	69.6	101	31	3.17	3.27	7	0	14	10	5	67	sw.
1898	70.0	103	30	3.85	6.22	8	0	13	10	8		sw.	1913	69.6	102	32	2.66	4.99	9	0	16	10	5	67	sw.
1899	69.1	101	33	4.67	3.50	11	0	13	11	7		sw.	1914	66.4	93	35	3.59	3.25	11	0	11	10	10	50	sw.
1900	70.5	100	39	3.03	2.64	9	0	14	11	6		sw.	1915	67.8	94	37	7.49	4.86	15	0	10	12	9	52	sw.
1901	71.1	101	36	4.22	3.50	11	0	12	10	9		sw.	1916	70.5	104	37	5.13	4.50	13	0	11	9	11	46	sw.
1902	66.3	96	30	4.67	3.34	12	0	10	9	12		sw.	1917	70.4	102	42	2.51	4.08	10	0	12	11	8	56	sw.



U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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CLIMATOLOGICAL DATA

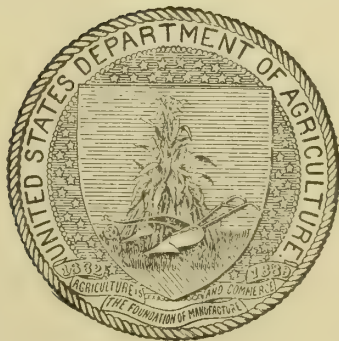
NEW ENGLAND SECTION

AUGUST, 1917

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BY  
JOHN W. SMITH  
METEOROLOGIST

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
SEPTEMBER 17, 1917



Departure of the Mean Temperature from the Normal, August, 1917.



Shaded portions show excess (+).  
Unshaded portions show deficiency (-).  
Lines show amount of excess or deficiency.



## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

Vol. XXIX.

BOSTON, MASS., AUGUST, 1917.

No. 8.

## GENERAL SUMMARY.

The month was warmer than usual, the average temperature for the section being the highest, with two exceptions, of any August since the beginning of the record in 1888. The highest temperature occurred on the 1st and 2d, when it rose to between 95° and 100° over the greater portion of the section. Although the remainder of the month was warm, with temperatures above 80° on the greater number of days, no extreme heat occurred. The precipitation was above the normal, and with the exception of 1915, has not been exceeded for August since 1898. At the majority of stations the monthly totals were more than four inches, and at a considerable number more than seven inches fell. The greatest excess was in Maine, where the average rainfall was more than two inches above the normal. In some localities in the southern portion of the section the rainfall was below the normal and insufficient for the best growth of vegetation. Thunderstorms were unusually frequent, particularly in the second and third decades. In many instances they were accompanied by intense lightning, high winds, heavy rain and hail, buildings being struck and burned, and crops damaged. The hailstorms on the 2d and 21st in the tobacco sections of Massachusetts and Connecticut were reported to have been among the most destructive of record.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 13 stations reporting, was 30.02 inches, which was .04 inch above the normal for the month, and .04 inch above the mean for August, 1916. The highest monthly mean was 30.04 inches, at Concord, N. H.; the lowest, 29.98 inches, at Burlington, Vt. The highest recorded was 30.39 inches, at Northfield, Vt. and Nantucket, Mass. on the 31st; the lowest, 29.41 inches, at Eastport, Me. on the 10th. The monthly range for the section was 0.98 inch.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 84 stations, was 69.5°, which was 0.5° above the mean for August, 1916. During the past 29 years the average August temperature has been higher in 2 years and lower in 27 than that of the present month. The highest average August temperature during this period was 70.0°, in 1906; the lowest, 61.8°, in 1903. The average temperature for the several States of the section was as follows: Maine, 67.0°; New Hampshire, 68.7°; Vermont, 67.6°; Massachusetts, 71.8°; Rhode Island, 70.5°; Connecticut, 72.2°. The average temperature for the section was 2.6° above the normal for the month. The departures from the normal for the several States were as follows: Maine, +1.9°; New Hampshire, +2.5°; Vermont, +2.7°; Massachusetts, +3.2°; Rhode Island, +1.2°; Connecticut, +3.2°. The highest monthly mean was 74.3°, at Bridgeport, Conn.; the lowest, 60.2°, at Eastport, Me. The highest recorded was 102°, at Waterbury, Conn. on the 1st; the lowest, 29°, at Chelsea, Vt. on the 27th. The greatest local monthly range was 66°, at Chelsea, Vt.; the least, 25°, at Bristol, R. I. The greatest daily range was 52°, at Patten, Me. on the 23d.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 13 stations reporting, was 82 per cent, which was 2 per cent above the mean for August, 1916, and 3 per cent above the normal for the month. The

highest monthly average was 92 per cent, at Eastport, Me.; the lowest, 75 per cent, at Hartford and New Haven, Conn.

## PRECIPITATION.

The average for the section, as determined from the records of 84 stations, was 5.10 inches, which was 2.35 inches above the average for August, 1916. During the past 29 years the average August precipitation has been greater in 5 and less in 24 years than that of the present month. The greatest average August precipitation during this period was 5.67 inches, in 1898; the least, 1.66 inches, in 1897. The average precipitation for the several States of the section was as follows: Maine, 5.64 inches; New Hampshire, 4.04; Vermont, 4.68; Massachusetts, 5.02; Rhode Island, 3.60; Connecticut, 4.98. The average precipitation for the section was 1.05 inches above the normal for the month. The departures from the normal for the several States were as follows: Maine, +2.21 inches; New Hampshire, +0.11; Vermont, +0.52; Massachusetts, +1.18; Rhode Island, -0.40; Connecticut, +0.76. The greatest monthly amount was 8.58 inches, at Blue Hill Observatory, Hyde Park, Mass.; the least, 0.73 inch, at Block Island, R. I. The greatest amount in 24 hours was 3.61 inches, at Hartford, Conn. on the 29-30th. The average number of days with .01 inch or more of precipitation was 11, which was 3 more than the average for August, 1916, and 1 more than the normal for the month.

## WIND.

The prevailing direction of the wind was from the southwest, which is the normal direction for the month, as determined from the records of the past 29 years. The greatest monthly wind movement at any station was 10,631 miles at Blue Hill Observatory, Hyde Park, Mass.; the least, 2,548 miles, at Amherst, Mass. The average hourly velocity was 8.1 miles, which was 0.5 mile below the average for August, 1916, and normal for the month. The highest recorded velocity was 54 miles per hour from the northeast, at Eastport, Me. on the 10th. This is about the usual maximum velocity for the month.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 14; partly cloudy, 9; cloudy, 8, which compares with the normal for the month of 13 clear, 10 partly cloudy, and 8 cloudy days. The average percentage of possible sunshine, as determined from records of 11 stations having self-recording instruments, was 61, which was 2 per cent below the average for August, 1916, and 1 per cent above the normal for the month, as determined from the records of the past 25 years. The greatest percentage of possible sunshine at any station was 73, at New Haven, Conn.; the least, 38, at Northfield, Vt. The greatest percentage of possible sunshine in any August since 1894, was 67, in 1895; the least, 46, in 1915.

## DESCRIPTION OF EVAPORATION STATIONS.

## GARDINER, ME.

The station is on an open-level lawn on the grounds of the Water District Pumping Station. The nearest body of water is the Colibasse River, 100 feet to the north. The soil is generally clay. The evaporation pan is of galvanized iron, 48 inches in diameter, and 10 inches deep, filled to an approximate depth of 8 inches, and resting on a wooden frame without ventilation beneath. In midsummer the pan is shaded about 2 hours in the morning, and 1 hour in the evening. The evaporation measurements are made by a standard Weather Bureau Hook Gage and Still Well. The anemometer is 4 inches from the pan, with cups 7 inches above. Observations are made during the open season, generally from April to November, by Mr. Samuel D. Soule, under the supervision of the Assistant Engineer, Maine Public Utilities Commission, Augusta, Me.

## DORCHESTER CENTER, MASS.

The station is in a residential section of Boston, about 5 1/2 miles south of the center of the city and the Local Weather Bureau Office. There is no considerable body of water within a mile or more; the soil is generally loam over ledge. The equipment is the property of the observer and is patterned after that used by the Weather Bureau. The evaporation pan is galvanized iron, 48 inches in diameter and 10 inches deep, filled to an approximate depth of 8 inches. The pan rests on a wooden framework, with ventilation beneath, and is shaded, at midsummer, about 3 1/2 hours in the morning and 1 1/2 hour in the evening. It is near the center of a plot of open ground of about 50 by 25 feet. Evaporation measurements are made by Still Well and Hook Gage. The anemometer, of standard pattern, is 6 inches from the pan, with cups 5 inches above. Observations are made during the open season by Mr. Luther Davis for private research.



## Climatological Data for August, 1917.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				No. of days.				Prevailing direction of wind.	Observer.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.			Cloudy.
Maine.																				
Bar Harbor	Hancock	20	31	65.1	+0.6	86	1†	50	19†	31	7.14	+4.14	3.00	0	11	21	3	7	se.	Mount Desert Nurseries.
Cornish	York	778	62	69.6	+3.4	97	1†	43	27	38	7.21	+3.00	1.65	0	14	8	12	11	e.	T. H. West.
Eastport	Washington	53	45	60.2	+0.5	79	7	48	16	24	4.44	+1.18	2.55	0	10	9	8	14	s.	U. S. Weather Bureau.
Farmington	Franklin	450	20	67.4	+2.7	95	2	41	27	38	7.14	+3.45	1.56	0	16	12	7	12	nw.	State Normal School.
Gardiner	Kennebec	163	25	69.2	+0.8	92	1	46	27	33	4.80	+1.38	0.84	0	15	17	4	10	se.	Samuel D. Soule.
Greenville	Piscataquis	1,140	13	64.7	.....	90	2	44	27	31	4.98	+1.18	1.02	0	19	10	7	14	.....	U. S. Weather Bureau.
Houlton	Aroostook	362	15	68.2	.....	94	2	40	22	36	4.89	+2.08	1.65	0	8	17	6	8	w.	Bangor & Aroostook RR.
Langtown	Franklin	1,500	1	64.4	.....	92	1	36	31	41	6.04	.....	0.80	0	14	9	16	6	.....	Langtown Co.
Lewiston	Androscoggin	185	34	68.8	+1.7	93	2	48	27	32	4.45	+1.19	1.16	0	13	8	17	6	s.	Union Water Power Co.
Madison	Somerset	267	14	68.4	.....	97	3	46	27	37	5.46	+0.97	1.96	0	12	15	4	12	sw.	William Jardine.
Millinocket	Penobscot	386	14	67.2	.....	90	2	41	27	36	6.70	+3.19	1.55	0	14	17	2	12	w.	Great Northern Paper Co.
North Bridgton	Cumberland	450	24	69.3	+2.1	97	2	46	27	35	7.48	+4.22	2.85	0	17	11	8	12	n.	C. L. Chadbourne.
Orono	Penobscot	129	48	68.7	+3.2	90	1	47	27†	33	4.09	+0.76	1.08	0	13	21	4	6	sw.	Maine State College.
Patten	.....do	550	15	65.6	.....	94	1	33	23	52	3.84	+0.15	1.64	0	4	16	41	10	sw.	Bangor & Aroostook RR.
Portland	Cumberland	99	46	66.9	+0.7	85	2	52	27	24	4.78	+1.21	2.41	0	11	9	9	13	s.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	8	66.9	.....	94	2	37	22	43	5.32	+3.24	1.30	0	8	18	4	9	s.	E. M. Libby.
Rumford	Oxford	505	24	67.4	+1.7	93	1	47	27	33	7.20	+3.88	1.32	0	17	14	8	9	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	13	66.0	.....	90	1†	41	31	36	6.02	+2.60	1.15	0	11	.....	.....	.....	.....	Rev. J. M. Thomas.
Winslow	Kennebec	90	22	69.6	+3.9	95	12†	27	27	40	5.23	+2.02	1.24	0	12	12	7	12	w.	Hollingsworth & Whitney
New Hampshire.																				
Alstead Center	Cheshire	1,120	13	69.5	+0.8	93	1	48	27	26	4.00	-0.12	0.86	0	11	16	4	11	sw.	Frank Dewing.
Bethlehem	Grafton	1,470	25	66.2	+2.0	92	1†	45	27†	33	5.02	+1.14	0.96	0	12	12	14	5	sw.	Benjamin Tucker.
Concord	Merrimac	350	57	70.0	+3.4	99	†	45	27	35	2.73	+0.98	1.71	0	12	13	8	10	se.	U. S. Weather Bureau.
Durham	Stafford	88	22	69.0	+1.0	98	2	44	27	39	4.23	+0.93	1.72	0	13	14	5	12	nw.	N. H. Agr. College.
Franklin	Merrimac	440	18	69.8	+4.2	98	4	43	27	39	3.46	-0.38	0.92	0	12	13	9	9	s.	Dr. C. P. Webster.
Glencoff	Grafton	1,650	4	65.7	.....	93	1	45	27†	32	2.84	.....	0.54	0	11	15	7	9	sw.	State Sanatorium.
Grafton	.....do	863	31	66.8	+2.1	97	2	37	27	41	3.65	+0.06	1.40	0	11	15	8	8	sw.	P. R. Kimball.
Hanover	.....do	603	83	70.4	+4.3	98	1†	43	27	39	3.76	+0.20	1.50	0	13	.....	.....	.....	s.	Dartmouth College.
Keene	Cheshire	506	32	69.0	+2.8	96	1	40	27	42	5.38	+1.45	2.00	0	11	17	7	7	sw.	Samuel Wadsworth.
Nashua	Millsboro	125	32	71.8	+3.2	100	1	46	27	38	4.10	+0.28	1.01	0	10	8	15	8	nw.	C. S. Stevens.
Newton	Rockingham	126	29	68.6	+1.6	94	1†	44	27	38	3.94	+0.84	1.38	0	10	12	17	2	se.	W. C. Gale.
Plymouth	Grafton	500	29	67.8	+2.1	91	2	40	27	36	3.38	-0.54	1.05	0	13	12	1	18	w.	Mrs. Hattie G. Trow.
Vermont.																				
Bloomfield	Essex	404	10	65.6	.....	93	1	41	27	38	7.64	+3.93	2.08	0	17	11	8	12	s.	Lyman Falls Power Co.
Burlington	Chittenden	910	14	68.4	+2.3	98	1	47	31	31	3.52	-0.49	1.09	0	16	8	11	12	s.	U. S. Weather Bureau.
Cavendish	Windsor	840	22	66.8	+2.9	95	1†	29	27	43	5.16	+1.56	1.79	0	9	19	2	10	.....	Colonial Power Co.
Chelsea	Orange	517	24	70.5	+2.6	98	1	48	31	33	3.56	-0.17	1.00	0	11	9	11	11	s.	W. F. Dewey.
Conwall	Addison	601	26	67.1	+2.5	96	1	45	31	36	4.44	+0.60	1.10	0	15	17	7	7	s.	C. H. Lane.
Enosburg Falls	Franklin	576	5	67.4	.....	95	1	44	27	36	7.23	.....	1.61	0	18	8	9	14	se.	J. W. Pomeroy.
Hyde Park	Lamoille	876	31	64.9	+2.0	95	†	43	31	36	3.13	-0.80	0.87	0	14	4	10	17	s.	A. V. Wiswell.
Northfield	Washington	562	1	68.5	.....	92	25	42	27	38	4.00	.....	1.59	0	12	12	13	6	se.	U. S. Weather Bureau.
Rutland	Rutland	2,096	6	63.4	.....	94	1	38	26	35	6.83	.....	2.95	0	13	8	18	5	nw.	George H. Ross.
Somerset	Windham	711	24	69.1	+4.7	97	1	43	27	38	7.86	+4.38	1.69	0	15	8	13	10	n.	Power Construction Co.
St. Johnsbury	Caledonia	310	2	71.8	+3.0	98	1	46	27	36	3.39	-0.69	1.32	0	7	14	8	9	se.	Fairbanks Museum.
Vernon	Windham	750	26	68.0	+1.6	92	1	46	31	25	4.36	+0.22	1.95	0	9	8	17	6	s.	Conn. River Power Co.
Wells	Rutland	700	25	67.6	+2.3	98	1	38	27	41	2.26	-0.93	0.65	0	7	9	9	13	.....	E. R. Pember.
Woodstock	Windsor	404	10	65.6	.....	93	1	41	27	38	7.64	+3.93	2.08	0	17	11	8	12	s.	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	28	72.3	+4.1	98	1	46	27	29	7.06	+2.67	2.94	0	13	20	9	2	sw.	Mass. Agr. College.
Blue Hill	Norfolk	640	33	71.0	+3.6	97	1	53	26	24	8.58	+4.97	1.98	0	13	14	8	9	s.	Blue Hill Observatory.
Boston	Suffolk	124	47	72.8	+3.9	98	1†	58	26	26	7.06	+3.03	3.60	0	10	15	11	5	sw.	U. S. Weather Bureau.
Chestnut Hill	.....do	124	37	73.2	+3.9	99	0	54	51	35	7.50	+3.61	3.20	0	10	24	0	7	.....	Met. Water Board.
Clinton	Worcester	370	21	69.5	.....	95	1	50	27	27	6.46	+3.06	2.76	0	9	.....	.....	.....	.....	Do.
Concord	Middlesex	139	27	70.4	+2.1	98	1	44	27	37	3.53	-0.08	1.20	0	11	12	11	8	sw.	Fred A. Tower.
Fall River	Bristol	200	51	72.2	+2.0	89	2	57	26	18	3.75	-0.11	1.56	0	9	9	17	5	sw.	C. V. S. Remington.
Fitchburg	Worcester	550	34	71.5	+3.2	99	1	51	27	31	2.74	-1.33	0.69	0	11	14	8	9	w.	Dr. A. P. Mason.
Framingham	Middlesex	161	37	73.2	+4.4	100	1	48	27	34	6.11	+2.41	2.63	0	8	.....	.....	.....	.....	Met. Water Board.
Lawrence	Essex	51	33	72.2	+2.6	98	1	49	27	34	4.42	+0.48	1.45	0	12	10	16	5	s.	Essex Company.
Lowell	Middlesex	100	32	73.2	+3.8	98	1†	50	27	32	3.69	+0.18	1.15	0	13	.....	.....	.....	.....	Props. Locks & Canals.
Nantucket	Nantucket	47	31	69.2	+1.2	82	13	55	16	20	1.56	-1.50	1.02	0	10	18	7	6	sw.	U. S. Weather Bureau.
New Bedford	Bristol	88	105	67.8	.....	90	2	54	51	23	3.00	-1.24	1.32	0	6	22	5	4	sw.	City Engineer.
Plymouth	Plymouth	50	32	67.8	.....	90	2	54	51	23	3.32	+0.06	0.95	0	12	22	6	3	w.	Miss L. B. Knapp.
Provincetown	Barnstable	40	30	71.8	+2.6	85	2†	58	26	23	3.29	+0.38	0.74	0	8	24	3	4	sw.	Gideon Bowley.
Rockport	Essex	25	15	67.5	.....	85	2	56	26†	19	4.68	.....	1.56	0	12	14	7	10	.....	U. S. C. G. Station.
Rutland	Worcester	1,160	15	69.8	.....	95	1	48	25	32	6.16	.....	1.83	0	10	19	6	6	sw.	State Sanatorium.
Springfield	Hampden	199	7	73.4	+2.7	99	1	51	26†	34	7.04	+3.03	2.63	0	9	11	11	9	se.	U. S. Army.
Turners Falls	Franklin	200	31	71.6	+4.0	97	1	48	27	30	3.46	-0.41	1.61	0	7	13	5	13	.....	Turners Falls Co.
Westboro	Worcester	298	43	72.3	+2.6	98	1	48	27	29	7.42	+3.38	1.95	0	10	.....	.....	.....	.....	Miss E. W. Newcomb.
Williamstown	Berkshire	711	36	70.1	+4.8	95	1†	46	27											





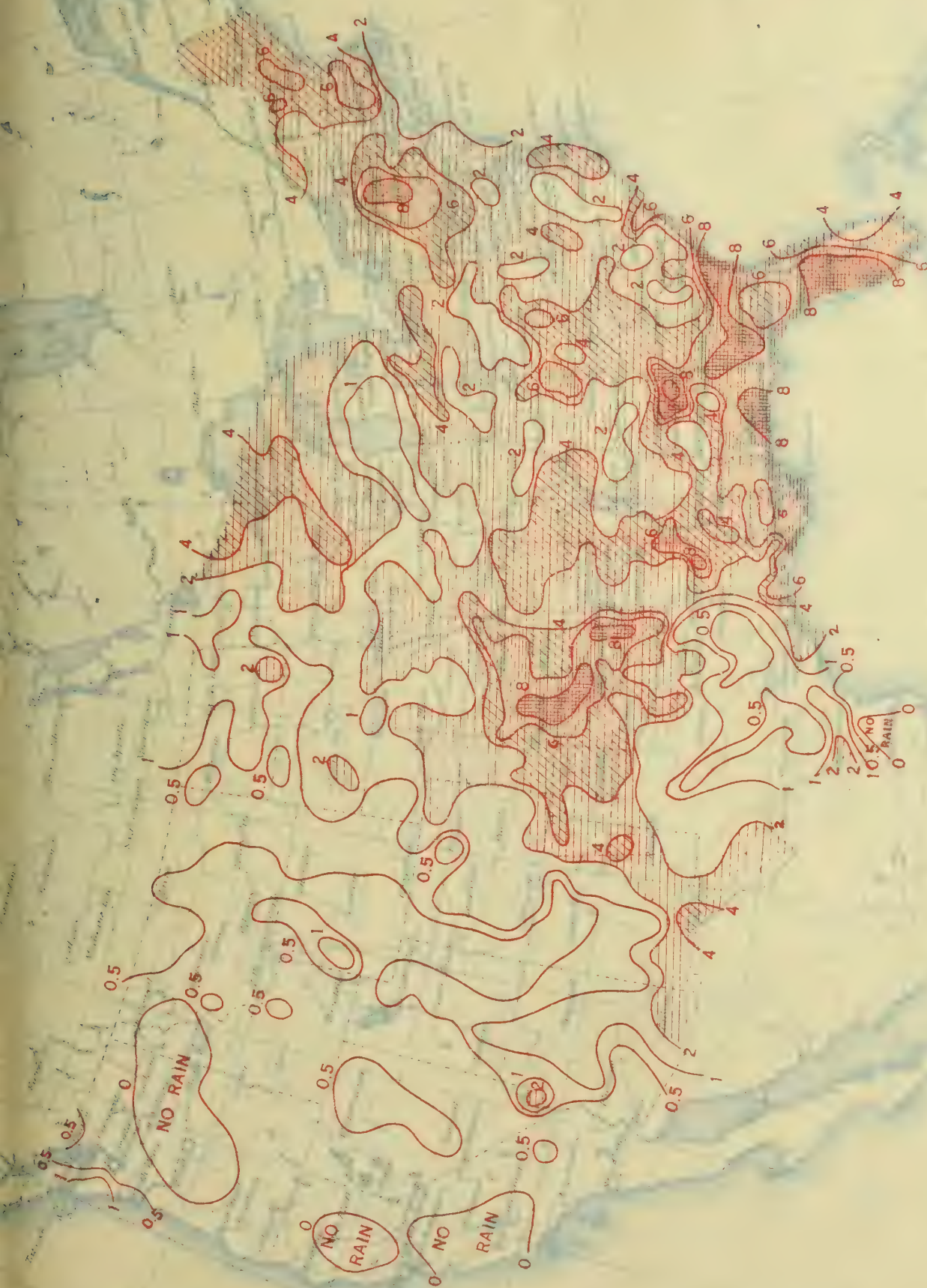


## Daily Temperatures for August, 1917.

Stations.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean
Maine.																																	
Bar Harbor	Maximum	86	77	73	79	78	72	86	79	69	67	73	82	82	82	75	73	61	75	79	82	78	62	65	66	73	71	74	77	73	72	74	74.7
	Minimum	60	60	61	59	51	57	55	51	58	58	54	57	56	54	53	52	55	50	59	52	52	55	58	58	57	50	56	59	56	52	52	55.5
Cornish	Maximum	97	97	88	86	89	87	87	84	81	73	72	85	88	86	84	74	66	80	83	84	83	78	70	83	87	75	80	87	69	70	79	81.8
	Minimum	59	68	63	56	54	57	60	52	65	60	50	53	55	59	60	60	60	58	51	58	58	59	60	65	65	50	43	54	60	60	47	57.4
Eastport	Maximum	67	69	66	76	68	71	79	68	62	64	70	72	73	72	74	61	64	62	69	70	65	60	62	68	61	70	71	74	64	63	69	67.9
	Minimum	53	51	52	58	52	52	55	51	50	53	51	55	57	52	50	48	50	33	54	58	54	52	52	55	56	52	50	52	53	52	53	52
Farmington	Maximum	94	95	81	80	85	85	89	82	78	74	81	86	86	83	79	66	65	78	77	82	76	77	70	71	81	71	79	83	70	63	73	78.5
	Minimum	58	68	65	54	59	58	58	50	52	63	49	68	59	52	62	57	59	57	50	58	60	51	62	65	65	83	41	49	58	57	44	56.3
Greenville	Maximum	88	90	79	73	73	80	80	78	73	66	77	80	82	82	73	61	60	72	71	71	70	74	69	69	76	68	74	75	62	60	69	73.8
	Minimum	57	66	65	56	58	57	60	48	61	60	59	56	55	52	60	56	57	54	52	55	54	48	60	61	63	50	44	53	57	55	49	55.6
Millinocket	Maximum	89	90	84	79	79	82	79	80	62	74	81	84	86	85	79	72	67	75	75	82	76	75	77	72	79	70	77	81	67	63	72	77.4
	Minimum	58	69	67	58	58	57	63	47	62	63	52	57	53	53	60	58	58	59	52	50	54	42	31	65	64	57	41	55	56	58	47	56.9
Orono	Maximum	90	89	88	83	83	81	83	85	75	69	83	84	89	88	82	77	67	77	76	82	82	84	73	73	77	74	78	80	77	68	74	79.6
	Minimum	60	67	66	57	52	59	60	52	60	63	53	59	58	55	57	57	58	58	55	59	57	60	65	62	62	59	47	59	67	99	47	57.6
Portland	Maximum	94	95	82	77	72	73	83	68	71	70	70	81	81	76	71	70	62	72	78	83	73	63	64	66	74	76	76	79	66	67	71	73.5
	Minimum	67	66	67	64	59	56	61	60	61	61	58	60	64	61	62	61	58	60	56	63	61	58	58	61	66	54	52	65	60	59	53	60.3
Presque Isle	Maximum	90	91	83	82	78	78	80	74	74	76	80	80	90	91	81	84	87	88	87	88	68	73	72	68	76	66	76	79	66	64	68	79.5
	Minimum	65	65	64	53	54	52	54	53	52	57	58	49	56	57	59	52	54	55	54	64	52	37	57	58	62	52	49	50	54	55	44	54.3
Rumford	Maximum	93	90	78	73	80	83	84	78	76	69	78	81	82	81	76	70	63	73	78	80	74	74	70	72	79	66	76	82	63	63	70	76.0
	Minimum	60	70	61	56	54	60	60	53	66	59	64	60	55	58	64	62	60	58	55	61	63	61	64	67	65	50	47	54	60	54	51	58.8
Van Buren	Maximum	90	90	75	70	81	82	79	80	72	79	79	81	85	83	83	80	72	71	75	75	76	74	75	77	75	73	75	73	63	67	76.8	
	Minimum	63	65	54	59	51	69	57	43	50	58	49	57	51	49	61	59	59	60	49	57	50	51	57	65	65	55	50	57	52	52	41	55.1
New Hampshire.																																	
Alstead Center	Maximum	93	91	78	75	80	78	84	75	80	76	77	81	84	79	75	78	76	72	78	82	81	73	72	82	80	73	72	78	72	70	76	78.1
	Minimum	68	68	68	65	58	68	58	53	67	67	55	58	58	60	62	61	61	56	54	61	58	58	62	60	68	62	48	58	62	62	53	60.9
Bethlehem	Maximum	92	92	70	77	81	81	76	77	71	78	79	81	80	73	78	73	67	77	80	73	76	76	78	78	69	68	75	76	74	65	69	76.1
	Minimum	54	67	60	56	48	53	58	56	64	58	59	54	53	61	62	58	58	54	62	57	57	56	72	67	62	47	45	64	55	55	46	56.4
Concord	Maximum	99	96	82	78	80	85	87	89	81	77	81	84	87	82	78	78	67	82	86	84	72	75	82	84	70	85	85	77	72	76	80.6	
	Minimum	66	72	63	58	57	55	62	55	67	59	52	62	58	59	61	62	62	58	53	60	63	61	62	67	65	52	45	59	62	58	49	50.5
Franklin	Maximum	98	97	82	80	85	84	87	79	82	77	85	87	89	84	75	81	82	86	83	72	73	82	84	73	82	85	73	82	85	74	77	81.8
	Minimum	63	68	63	55	58	55	61	51	65	64	52	62	53	54	55	58	61	59	51	57	61	60	63	67	70	53	43	54	61	60	50	58.4
Hanover	Maximum	98	98	83	80	83	85	89	78	83	80	84	86	80	81	71	79	77	77	82	87	79	71	78	80	85	72	72	73	68	69	76	81.1
	Minimum	63	69	62	55	55	53	61	55	68	61	58	59	62	56	63	62	60	57	54	65	67	62	64	68	67	58	43	63	58	56	48	59.7
Keene	Maximum	96	95	82	78	84	85	88	80	84	79	82	86	84	83	74	80	74	77	84	85	83	75	75	86	85	72	82	84	71	76	81	81.5
	Minimum	64	68	63	50	47	51	60	53	56	64	48	51	52	54	61	60	60	52	50	55	61	59	63	68	69	47	40	52	61	64	46	56.5
Plymouth	Maximum	90	91	83	79	80	82	85	76	74	75	78	83	84	77	71	79	69	73	77	77	75	74	71	67	76	81	70	69	70	69	70	77.2
	Minimum	59	71	68	53	52	54	60	52	66	65	53	59	50	59	63	63	62	54	49	59	61	62	64	68	65	54	40	53	62	59	49	58.3
Vermont.																																	
Burlington	Maximum	98	91	80	73	79	81	80	76	76	73	80	85	84	74	75	82	77	75	72	82	66	79	80	84	80	70	78	72	64	62	71	77.3
	Minimum	67	72	64	56	51	59	62	62	66	65	55	54	55	64	63	62	60	63	64	53	55	67	68	59	54	54	60	56	53	47	59.6	
Enosburg Falls	Maximum	96	90	79	74	81	79	84	76	75	74	81	81	85	76	76	83	80	74	72	84	69	79	80	85	81	66	78	74	67	72	78.0	
	Minimum	61	69	57	56	46	54	56	55	66	59	49	53	49	57	64	60	59	56	57	58	53	49	60	62	59	48	57	55	53	45	56.2	
Northfield	Maximum	95	93	79	48	79	79	81	75	77	72	77	80	82	70	72	75	77	72	77	82	68	72	73	79	79	67	73	74	38	62	70	76.0
	Minimum	59	66	56	47	43	49	55	52	62	53	48	48	47	55	62	60	56	55	52	56	57	58	64	65	60	50	43	59	55	45	43	54.2
St. Johnsbury	Maximum	97	94	80	78	84	84	87	80	79	77	82	86	87	83	76	80	78	73	78	82	80	80	81	84	81	81	78	71	66	76	80.7	



Scale of Shading.





## Daily Precipitation for August, 1917—Continued from page 61.

Stations.	Watersheds.	Day of month.																															Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
<i>Rhode Island.</i>																																		
Block Island ***	Coast							T.		.24							T.	.35					*	.49	.03	.04	.07					T.		0.78
Bristol	do			.03						.02	1.05						.03	1.14	.05					.58	.17	.61		.27				.01	.57	3.69
Greene	do		.11					.01		.53	1.50						.50	1.05	.39												.84	1.23	7.52	
Hope Valley	do									2.90							1.91					2.15			.05						.40		7.41	
Kingston	do			.01						1.25							.07	1.00						.03	.04	.04					.41		2.85	
Narrag'sett Pier***	do									.81							.12	1.78					.06	.04	.05	.49				.10	.07	.12	3.64	
Pawtucket	do			.11						* 2.93			T.	T.	T.		.06	.27				1.22	*	.24	.16						.84		5.83	
Providence***	do			.02						.51	2.23	T.	T.	T.	T.		.01	1.03				.34		.16	.01	.13				.09	1.34		5.90	
Wallum Lake	do			.10						1.50	.75				.20			.97					.20	.13	.10	.10				.95	.57		5.70	
<i>Connecticut.</i>																																		
Bridgeport	Coast	.37	T.	.08						.10							.02	1.49						.50	.08		.31				.08	.35	3.38	
Canton	Connecticut	.07	.07				.05			.11	.21					.10	T.	.44					.06		.07	.67				2.11	.52		4.48	
Colchester	Coast		.19	.06						1.20	.22		T.				1.39						.95	*	.65	.36					2.09		7.11	
Cream Hill	Housatonic							.15		.01	.20					.25	.01	.32						.05	.90					.85	1.25		3.99	
Danielson	Coast		.30							.40	1.00	.10					.65	.60				.35		.10	.90					.25	1.75		6.40	
East Hartland	do					.05				2.48						.09	.06							.11	1.09					1.63	.66		6.50	
Falls Village	Housatonic					.76				T.						.38	.02	T.						.02	.31					.80	.92		3.01	
Hartford ***	Connecticut		.20	T.			T.			.02	.05					T.	.01	.15				2.72		.04	.12					2.19	1.42		6.92	
Lake Konomocott	Coast			.10						.85	.62		.22				1.00							.91		.33	.21				.22	1.07	5.53	
New Haven***	do		T.	.02	.06					.49	T.					T.	T.	.86				.10	.10	.18	.55					.17			2.33	
New London	do									.25	.37		T.			T.	T.	.55					3.00	.02	.18	.20					.70		4.90	
N. Grosvenor Dale	do			.03						.87	.37					T.		.86						.42	.03	.04	.02				2.31	.45		5.40
Norwalk	do	.80		.03						.12	.08						.03					.78		T.							.56			2.37
Southington	do		.20	.20				.10	T.		T.						.80		T.				1.60	.05	.40						1.90	T.	5.05	
Storrs	Coast		.20	.01						1.24	.23		.04				.23	.23				1.78			.18	.02			1.34	.78	.78		7.06	
Torrington	Housatonic		.01				.03			.33	2.25						T.	.28	.03					.04	*	.29	.04					2.64	.40	6.34
Voluntown	Coast			.10						.42	1.03						.61	.58						.30	*	.23	T.			.30	*	.94	4.51	
Waterbury	Housatonic		.02	.17				T.		.20	.15						.08	1.12	.01				1.06	.12	.40	.04				2.25	T.		5.62	

## Special River Rainfall Stations.

Maine.																																	
Brownville	Saco																																
Mattawamkeag	Penobscot																																
West Enfield	do																																
New Hampshire.																																	
Franklin Junction	Merrimack																																
Lancaster	Connecticut																																
Manchester	Merrimack																																
Sewall's Falls #	do																																
West Stewartstown	Connecticut																																
Vermont.																																	
Bellow's Falls	Connecticut																																
Wells River	do																																
White River Junct'n	do			T.						T.	.17						.03	.53	.02	.82		T.	T.			T.	.77			.13	.41	.10	2.98
Massachusetts.																																	
Holyoke	Connecticut									1.02																					1.14	2.16	

## Daily Evaporation (inches) and Wind Movement (miles).

Gardiner, Me.	Evaporation	.25	.23	.18	.20	.19	.19	.25	.21	.13	.04	.14	.22	.23	.21	.22	.09	.03	.11	.25	.10	.22	.07	.01	.02	.08	.23	.19	.16	.06	.24	.10	4.85
	Wind movement	49	41	39	31	59	40	60	40	80	51	40	49	40	30	60	31	30	51	49	50	81	39	30	41	49	50	60	80	40	30	40	1,459
Dorchester Cen-ter, Mass.	Evaporation	.154	.186	.076	.137	.140	.129	.138	.101			.157		.231	.106	.145	.065	.141		.105	.122	.145		.055	.048	.185	.107	.077	.106	.165		137	3.148
	Wind movement	12	8	11	12	13	12	10	13	5	15	14		17	6	6	4	3	9	14	7	10	28	15	18	6	9	11	20	18	12	16	356

|| Observations taken at 6 p. m.

|||| Observations taken at 7 a. m.

See temperature and precipitation data in Climatological Tables.

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

† Precipitation is less than 0.01 inch rain or melted snow.

\* Precipitation indicated in that of following day.

†† Post-office addresses of these stations are as follows: Langtown, Redington, Me.; Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.; Moss Brook, Wendell Depot, Mass.; Priest Brook, Winchendon, Mass.; Sewall's Falls, Concord, N. H.

## Comparative Data for New England for August.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.								
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888....	67.3	93	30	5.25		11	0	10	10	11		sw.	8.9	4	sw.	1903....	61.8	90	29	4.09	4.02	11	0	11	9	11	61	nw.	7.1	54	e.
1889....	66.2	94	35	3.72		11	0	11	10	10		sw.	7.6	13	ne.	1904....	65.3	93	30	4.31	4.35	10	0	15	9	9	62	sw.	7.7	52	s.
1890....	66.6	94	32	4.74		12	0	7	14	10		sw.	8.3	13	sw.	1905....	65.4	92	32	3.67	3.25	10	0	14	8	9	66	sw.	7.9	40	ne.
1891....	68.2	97	33	3.73		12	0	8	12	11		sw.	7.9	16	ne.	1906....	70.0	102	33	2.68	2.16	7	0	16	8	7	64	sw.	7.3	44	sw.
1892....	67.8	97	31	5.45		11	0	10	9	12		sw.	8.0	13	ne.	1907....	64.6	99	33	1.66	2.50	8	0	15	10	6	65	nw.	7.8	34	s.
1893....	67.8	102	34	5.22		11	0	13	9	9		sw.	8.7	12	n.	1908....	65.8	98	32	4.91	5.23	9	0	16	7	8	60	sw.	8.3	55	ne.
1894....	65.8	94	29	1.75	3.03	8	0	11	11	9	61	sw.	8.3	32	nw.	1909....	66.1	100	28	2.86	3.35	7	6	16	8	7	62	nw.	8.8	54	e.
1895....	66.8	96	35	3.56	3.16	8	0	12	13	6	67	sw.	8.6	36	sw.	1910....	65.7	99	29	3.08	3.31	8	0	14	10	7	58	sw.	8.7	36	sw.
1896....	67.8	100	28	3.17	2.41	10	0	13	10	8	58	sw.	7.9	16	n.	1911....	66.9	97	31	4.86	4.56	9	0	13	8	10	54	sw.	8.3	49	w.
1897....	64.1	91	33	4.16	4.60	9	0	14	9	8	58	sw.	8.5	53	sw.	1912....	63.3	92	29	4.03	3.21	10	0	11	12	8	59	sw.	8.8	50	w.
1898....	69.6	95	33	5.67	4.08	13	0	10	11	10	50	sw.	7.9	40	n.	1913....	67.2	100	30	3.69	2.75	8	0	16	10	5	60	sw.	9.6	45	s.
1899....	67.4	99	32	4.66	4.89	9	0	15	9	7	63	sw.	7.4	35	ne.	1914....	67.2	96	32	3.09	2.80	11	0	12	9	10	52	sw.	7.6	61	w.
1900....	69.1	101	31	2.78	2.44	9	0	15	10	6	63	sw.	7.2	57	nw.	1915....	65.9	95	30	5.61	10.06	13	0	10	11	6	46	sw.	8.5	48	se.
1901....	68.8	92	34	4.40	5.29	9	0	12	10	9	63	sw.	7.1	49	s.	1916....	63.0	101	30	2.75	3.92	8	0	17	8	6	63	sw.	8.6	46	nw.
1902....	64.8	92	30	3.58	4.43	9	0	14	10	7	55	sw.	6.9	41	s.	1917....	69.5	102	29	5.10	3.61	11	0	14	9	8	61	sw.	8.1	54	ne.



U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

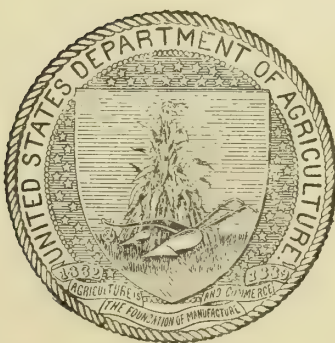
NEW ENGLAND SECTION

SEPTEMBER, 1917

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BY  
JOHN W. SMITH  
METEOROLOGIST

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
OCTOBER 18, 1917



Departure of the Mean Temperature from the Normal, September, 1917.



Shaded portions show excess (+).  
 Unshaded portions show deficiency (-).  
 Lines show amount of excess or deficiency.



## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

Vol. XXIX. BOSTON, MASS., SEPTEMBER, 1917. No. 9.

## GENERAL SUMMARY.

Unusually cool weather for the season prevailed through the month. The average temperature for the section,  $57.1^{\circ}$ , was the lowest of record for the month, with the exception of  $56.1^{\circ}$ , in 1893. Killing frost was general over the greater portion of the section on the 11th and 12th, occurring from one to two weeks or more, earlier than usual. Owing to the backwardness of the growing season, the exceptionally early occurrence of killing frost caused great damage to corn, tobacco, cranberries, and all tender truck and vegetation. With the exception of fairly heavy amounts in the southern portion of the section on the 18th, the rainfall of the month was light and scattered, and generally less than one-half the usual amount. In the extreme southeastern portion of the section the deficiency was not great, but in the remainder of the district it was more than two inches at a large number of stations. Over a considerable portion of the northern States the total rainfall for the month was less than one inch.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 13 stations reporting, was 30.11 inches, which was .05 inch above the normal for the month, and .06 inch above the mean for September, 1916. The highest monthly mean was 30.14 inches, at Northfield, Vt.; the lowest, 30.07 inches, at Eastport, Me. The highest recorded was 30.63 inches, at Northfield, Vt. on the 23d; the lowest, 29.41 inches, at Eastport, Me. on the 30th. The monthly range for the section was 1.22 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 79 stations, was  $57.1^{\circ}$ , which was  $3.2^{\circ}$  below the mean for September, 1916. During the past 29 years the average September temperature has been higher in 28 and lower in only 1 year than that of the present month. The highest average September temperature during this period was  $63.8^{\circ}$ , in 1891; the lowest,  $56.1^{\circ}$ , in 1893. The average temperature for the several States of the section was as follows: Maine,  $55.4^{\circ}$ ; New Hampshire,  $55.7^{\circ}$ ; Vermont,  $55.5^{\circ}$ ; Massachusetts,  $58.5^{\circ}$ ; Rhode Island,  $58.9^{\circ}$ ; Connecticut,  $58.7^{\circ}$ . The average temperature for the section was  $3.0^{\circ}$  below the normal for the month. The departures from the normal for the several States were as follows: Maine,  $-2.6^{\circ}$ ; New Hampshire,  $-3.2^{\circ}$ ; Vermont,  $-2.1^{\circ}$ ; Massachusetts,  $-3.1^{\circ}$ ; Rhode Island,  $-4.3^{\circ}$ ; Connecticut,  $-3.1^{\circ}$ . The highest monthly mean was  $62.3^{\circ}$ , at New London, Conn.; the lowest,  $50.0^{\circ}$ , at Somerset, Vt. The highest recorded was  $90^{\circ}$ , at Patten, Me. on the 24th; the lowest,  $21^{\circ}$ , at Somerset, Vt. on the 10th. The greatest local monthly range was  $62^{\circ}$ , at Patten, Me.; the least,  $30^{\circ}$ , at Block Island, R. I. The greatest daily range was  $52^{\circ}$ , at St. Johnsbury, Vt. on the 27th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 13 stations reporting, was 80 per cent, which was 2 per cent above the mean for September, 1916, and 2 per cent below the normal for the month. The highest monthly average was 88 per cent, at Concord, N. H.; the lowest, 70 per cent, at New Haven, Conn.

## PRECIPITATION.

The average for the section, as determined from the records of 80 stations, was 1.60 inches, which was 1.93 inches below the average for September, 1916. During the past 29 years the average September precipitation has been greater in 26, the same in 1, and less in 2 years than that of the present month. The greatest average September precipitation during this period was 8.29 inches, in 1888; the least, 0.98 inch, in 1911. The average precipitation for the several States of the section was as follows: Maine, 1.28 inches; New Hampshire, 0.87; Vermont, 1.65; Massachusetts, 1.72; Rhode Island, 3.12; Connecticut, 1.79. The average precipitation for the section was 1.90 inches below the normal for the month. The departures from the normal for the several States were as follows: Maine,  $-2.28$  inches; New Hampshire,  $-2.70$ ; Vermont,  $-1.76$ ; Massachusetts,  $-1.71$ ; Rhode Island,  $-0.12$ ; Connecticut,  $-1.87$ . The greatest monthly amount was 4.47 inches, at New London, Conn.; the least, none, at Patten, Me. The greatest amount in 24 hours was 3.00 inches, at New London, Conn. on the 18th. The average number of days with .01 inch or more of precipitation was 7, which was 2 less than the average for September, 1916, and 2 less than the normal for the month.

## WIND.

The prevailing direction of the wind was from the southwest, which is the normal direction for the month, as determined from the records of the past 29 years. The greatest monthly wind movement at any station was 10,339 miles at Nantucket, Mass.; the least, 1,702 miles, at Amherst, Mass. The average hourly velocity was 8.2 miles, which was 1.4 miles below the average for September, 1916, and normal for the month. The highest recorded velocity was 67 miles per hour from the northeast, at Nantucket, Mass. on the 18th. This is somewhat greater than the usual maximum velocity for the month.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 17; partly cloudy, 7; cloudy, 6, which compares with the normal for the month of 14 clear, 8 partly cloudy, and 8 cloudy days. The average percentage of possible sunshine, as determined from records of 11 stations having self-recording instruments, was 63, which was 1 per cent below the average for September, 1916, and 9 per cent above the normal for the month, as determined from the records of the past 25 years. The greatest percentage of possible sunshine at any station was 72, at Eastport, Me.; the least, 50, at Northfield, Vt. The greatest percentage of possible sunshine in any September since the beginning of the automatic records in 1894, was 77, in 1903; the least, 41, in 1907.

## DATES OF MISCELLANEOUS PHENOMENA.

*Auroras*.—Eastport, 5, 8, 12, 21; North Bridgton, Me., 5, 8; Rumford, Me., 5; Bethlehem, N. H., 5, 8, 10; Hanover, N. H., 8, 21; Newton, N. H., 18, 24; Plymouth, N. H., 5; Burlington, Vt., 5, 12; Enosburg Falls, Vt., 1, 6, 9, 19; Northfield, Vt., 5, 8, 18; Blue Hill, Mass., 6; Fall River, Mass., 5, 8; Hingham, Mass., 5; Rockport, Mass., 21; Block Island, R. I., 5.

*Halos, Lunar*.—Eastport, Me., Bethlehem, N. H., 24, 27; Northfield, Vt., 27, 28, 29, 30; Nantucket, Mass., 6, 29; Block Island, R. I., 27, 29; New Haven, Conn., 27, 28, 29; Norwalk, Conn., 27.

*Halos, Solar*.—Northfield, Vt., 7; Blue Hill, Mass., 4, 24, 29; Boston, Mass., 24, 29; Somerset, Mass., 24; New Haven, Conn., 7, 14, 23, 27, 29; Southington, Conn., 7, 16, 24.

*Thunderstorms* (dates and number of observers reporting on each)—Maine: 1st, 1; 2d, 2; 3d, 1; 20th, 5; 30th, 2. New Hampshire: 2d, 1; 19th, 1; 20th, 4; 21st, 1; 30th, 4. Vermont: 2d, 1; 19th, 5; 20th, 5; 21st, 2; 30th, 3. Massachusetts: 1st, 2; 2d, 2; 18th, 1; 20th, 17; 21st, 5; 30th, 7. Rhode Island: 20th, 2. Connecticut: 20th, 1; 28th, 1; 30th, 8.



## Climatological Data for September, 1917.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.						No. of days.				Prevailing direction of wind.	Observer.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.	Cloudy.			
Maine.																					
Bar Harbor	Hancock	20	31	56.4	-2.2	82	19	31	23	34	2.50	-1.08	1.30	0	6	23	2	5	sw.	Mount Desert Nurseries.	
Cornish	York	778	62	56.9	-1.9	85	19	28	24	42	1.18	-2.77	0.76	0	5	18	6	6	sw.	T. H. West.	
Eastport	Washington	53	45	54.2	-1.0	75	27	36	23	27	1.51	-1.46	0.67	0	8	10	13	4	nw.	U. S. Weather Bureau.	
Farmington	Franklin	450	20	55.4	-2.7	82	19	27	24	42	1.69	-1.87	0.75	0	8	16	10	4	nw.	State Normal School.	
Gardiner	Kennebec	163	25	56.4	-3.4	82	19	30	24	37	0.71	-2.55	0.27	0	7	21	4	5	sw.	Samuel D. Soule.	
Greenville	Piscataquis	1,140	13	53.4		81	27	27	23	38	1.80	-2.37	0.55	0	9	15	6	9	sw.	U. S. Weather Bureau.	
Houlton	Aroostook	362	15	53.6		78	27	28	24	47	1.97	-0.83	1.70	0	3	21	7	2	w.	Bangor & Aroostook RR.	
Langtown	Franklin	1,500	1																	Langtown Co.	
Lewiston	Androscoggin	185	34	56.4	-2.8	82	19	31	12	38	0.62	-2.85	0.32	0	7	15	12	3	sw.	Union Water Power Co.	
Madison	Somerset	257	14	55.4		82	20	30	11	35	2.09	-2.09	0.72	0	7	27	2	4	nw.	William Jardine.	
Millinocket	Penobscot	386	14	54.7		82	19	27	23	42	1.35	-2.64	0.56	0	6	18	4	8	w.	Great Northern Paper Co.	
North Bridgton	Cumberland	450	24	57.0	-2.8	87	19	29	24	41	0.52	-3.21	0.15	0	5	19	4	7	n.	C. L. Chadbourne.	
Orono	Penobscot	129	48	53.0	-4.1	81	19	29	23	40	1.08	-2.48	0.31	0	5	24	2	4	sw.	Maine State College.	
Patten	do	550	15	60.8		90	24	28	12	47	0.00	-4.30	0.00	0	0	18	0	7	sw.	Bangor & Aroostook RR.	
Portland	Cumberland	99	46	56.4	-3.2	80	19	36	24	29	0.32	-2.88	0.11	0	9	16	9	5	nw.	U. S. Weather Bureau.	
Presque Isle	Aroostook	1,000	8																	E. M. Libby.	
Rumford	Oxford	505	24	55.4	-2.4	80	19	32	23	34	1.33	-1.98	0.65	0	6	22	4	4	nw.	Charles A. Mixer.	
Van Buren	Aroostook	510	13	51.6		80	19	23	23	43	1.70	-1.43	0.69	0	7	18	5	7	nw.	Rev. J. M. Thomas.	
Winslow	Kennebec	90	22					28	24	47	1.31	-1.91	0.58	0	7	19	6	5	w.	Hollingsworth & Whitney	
New Hampshire.																					
Alstead Center	Cheshire	1,120	13	56.6	-3.2	78	20	32	11	32	0.55	-3.04	0.27	0	7	24	5	1	nw.	Frank Dewing.	
Bethlehem	Grafton	1,470	25	53.5	-3.0	77	2	28	23	32	1.49	-2.30	0.48	0	8	19	8	3	sw.	Benjamin Tucker.	
Concord	Merrimac	350	57	56.1	-3.0	84	19	30	24	39	0.57	-2.64	0.38	0	6	17	10	3	n.	U. S. Weather Bureau.	
Durham	Stafford	88	22	56.6	-3.9	85	19	25	24	43	0.43	-3.24	0.15	0	6	17	9	4	se.	N. H. Agr. College.	
Franklin	Merrimac	440	18	57.6	-2.3	86	19	28	11	41	0.87	-3.64	0.25	0	7	20	6	4	nw.	Dr. C. P. Webster.	
Glencoff	Grafton	1,650	4	53.4		77	20	27	23	31	1.68		0.43	0	7	18	7	5	nw.	State Sanatorium.	
Grafton	do	863	31																	P. R. Kimball.	
Hanover	do	603	83	56.8	-1.0	84	19	28	32	43	0.87	-2.20	0.31	0	11	8	13	19	nw.	Dartmouth College.	
Keene	Cheshire	506	32	55.6	-3.5	83	21	26	11	45	0.74	-2.72	0.31	0	5	17	12	1	sw.	Samuel Wadsworth.	
Nashua	Hillsboro	125	32	57.4	-3.7	84	19	30	24	39	0.86	-2.28	0.33	0	6	13	14	3	n.	C. B. Stevens.	
Newton	Rockingham	126	29	54.5	-5.6	82	19	22	24	41	0.88	-2.49	0.47	0	4	17	12	1	nw.	W. C. Gale.	
Plymouth	Grafton	500	29	54.4	-3.0	79	19	24	23	46	0.67	-3.04	0.30	0	5	21	4	5	w.	Mrs. Hattie G. Trow.	
Vermont.																					
Bloomfield	Essex		10	53.6		80	19	26	23	41	2.24	-1.51	0.55	0	11	17	3	10	s.	Lyman Falls Power Co.	
Burlington	Chittenden	404	10	56.7	-2.2	78	19	31	23	31	3.62	+0.27	1.29	0	12	12	12	6	s.	U. S. Weather Bureau.	
Cavendish	Windsor	910	14	56.9		83	19	30	25	44	0.87	-3.35	0.34	0	6	15	13	2	n.	Colonial Power Co.	
Chelsea	Orange	840	22	53.0	-3.2	79	21	22	23	44	1.51	-1.83	0.48	0	8	18	3	9	n.	W. F. Dewey.	
Cornwall	Addison	517	24	59.2	-1.7	84	19	31	23	34	1.36	-1.15	0.80	0	7	17	7	6	n.	C. H. Lane.	
Enosburg Falls	Franklin	601	26	55.4	-2.6	81	27	28	23	38	3.41	+0.05	1.30	0	10	15	9	6	nw.	J. W. Pomeroy.	
Hyde Park	Lamoille	576	5	55.3		81	19	26	23	43	2.10		0.53	0	12	14	6	10	w.	A. V. Wiswell.	
Northfield	Washington	876	31	52.9	-1.7	79	19	24	23	41	1.37	-1.39	0.42	0	9	8	14	8	s.	U. S. Weather Bureau.	
Rutland	Rutland	562	1	58.0		82	20	28	23	38	1.12		0.34	0	8	20	8	2	nw.	George H. Ross.	
Somerset	Windham	2,096	6	50.0		74	26	21	10	40	1.21		0.47	0	9	13	15	2	n.	Power Construction Co.	
St. Johnsbury	Caledonia	711	24	56.6	-0.8	82	19	26	12	52	1.61	-2.00	0.42	0	12	19	5	6	n.	Fairbanks Museum.	
Vernon	Windham	310	2	57.3	-3.4	84	19	33	11	40	0.64	-3.46	0.25	0	5	21	2	7	nw.	Conn. River Power Co.	
Wells	Rutland	750	26	56.6	-2.2	78	2	30	23	28	1.06	-2.77	0.42	0	6	14	12	4	s.	E. R. Pember.	
Woodstock	Windsor	700	25	55.6	-1.1	82	2	23	23	41	0.98	-2.18	0.34	0	5	14	10	6	n.	John S. Eaton.	
Massachusetts.																					
Amherst	Hampshire	222	28	58.4	-1.8	85	19	30	11	41	2.42	-1.33	0.74	0	5	15	9	6	ne.	Mass. Agr. College.	
Blue Hill	Norfolk	640	33	58.0	-3.0	79	19	37	11	23	3.17	-1.00	1.83	0	8	14	10	6	sw.	Blue Hill Observatory.	
Boston	Suffolk	124	47	60.2	-2.5	83	19	40	24	26	1.91	-1.28	1.47	0	7	16	9	5	sw.	U. S. Weather Bureau.	
Chestnut Hill	do	124	37	61.2	-1.9	82	19	33	24	33	1.98	-1.94	1.18	0	9	23	0	7	sw.	Met. Water Board.	
Clinton	Worcester	370	21	56.1		77	20	30	24	30	1.12	-1.90	0.41	0	7					Do.	
Concord	Middlesex	139	27	56.0	-4.6	82	19	26	24	38	1.55	-1.92	0.62	0	6	17	7	6	se.	Fred A. Tower.	
Fall River	Bristol	200	51	59.8	-4.1	77	20	38	24	22	2.93	-0.31	1.92	0	9	11	18	1	sw.	C. V. S. Remington.	
Fitchburg	Worcester	550	34	59.2	-1.9	85	19	31	24	32	0.72	-2.56	0.20	0	7	19	8	3	nw.	Dr. A. P. Mason.	
Framingham	Middlesex	160	37	58.6	-3.4	81	19	33	11	34	1.50	-2.21	0.73	0	7					Met. Water Board.	
Lawrence	Essex	51	33	58.4	-3.4	83	19	32	24	35	1.13	-2.02	0.66	0	7	11	19	0	s.	Essex Company.	
Lowell	Middlesex	100	32	59.6	-2.4	81	20	28	24	35	1.37	-2.26	0.47	0	7					Props. Locks & Canals.	
Nantucket	Nantucket	47	31	59.7	-3.1	77	21	46	24	21	2.37	-0.36	1.16	0	10	11	9	10	ne.	U. S. Weather Bureau.	
New Bedford	Bristol	88	105																	City Engineer.	
Plymouth	Plymouth	50	32	55.2		74	21	36	11	26	2.95	-0.61	1.87	0	6	20	3	7	n.	Miss L. B. Knapp.	
Provincetown	Barnstable	40	30	60.1	-3.7	75	3	42	24	21	2.11	-1.20	1.53	0	5	22	4	9	n.	Gideon Bowley.	
Rockport	Essex	25	15	58.6		77	19	41	11	24	1.48		1.09	0	6	18	3	4	sw.	U. S. C. G. Station.	
Rutland	Worcester	1,160	15	56.8		78	21	32	10	30	1.51		0.40	0	12	19	5	6	sw.	State Sanatorium.	
Springfield	Hampden	199	7	60.2	-2.8	86	19	34	23	39	0.94	-2.39	0.40	0	8	14	11	5	ne.	U. S. Armory.	
Turners Falls	Franklin	200	31	57.2	-3.6	78	21	30	13	42	0.95	-2.64	0.31	0	7					Turners Falls Co.	
Westboro	Worcester	298	43	58.1	-4.4	76	19	34	24	27	1.36	-2.22	0.70	0	7					Miss E. W. Newcomb.	
Williamstown	Berkshire	711	36	55.8	-3.2	79	2	30	23	33	1.67	-1.58	0.43	0	7	15	13	2	nw.	Williams College.	
Worcester	Worcester	518	25	59.1	-2.3	81	20	37	24	23	0.90	-2.61	0.39	0	6	14	10	6	ne.	G. W. Swan.	
Rhode Island.																					
Block Island	Newport	26	37	61.0	-3.1	76	3	46	11	19	2.80	-0.2									



Daily Precipitation for September, 1917.

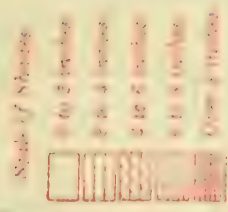
Stations.	Watersheds.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Maine.																																	
Ashland	St. John																																
Bar Harbor	Coast			.15			.50	.05		T									.18										.42	.10		2.30	
Cornish	Saco	.24					.07												T		.76		T						.10	.01		1.18	
Eastport***	Coast	.02	.17		T		.30				.01	.08						.21			.76	T		T					.22	.01	.57		1.51
Eustis	Kennebec	T	T	.20			.10														.75	.20	.01						.67	.30		2.10	
Farmington	do	.02		.14			.22				.01	.08					.44				.75	.20	.01						.02	.30		1.09	
Gardiner	do			.03			.13	T								.01				.27	T								.07	T	.18		0.71
Greenville**	do	T	.37	T			.20			.08	.12						.13			.02	.29	.04	T						.02	T	.55		1.80
Houlton	St. John	.07																			.20										.17		1.95
Howe Brook	Penobscot																																
Langtown #	Kennebec																																
Lewiston #	Androscoggin	.03					.16				.01					T			T		.32	.04							.04	.02			0.62
Madison	Kennebec		.72				.34			.14											.64		.07						.06	.13			2.09
Mullinocket	Penobscot	.02	.16				.05			.56											.27									.29			1.35
North Bridgton	Saco	.15					.10									T			T		.10	.11							T	.06			0.37
Orono	Penobscot			.31			.25				.13										.13	.26											1.08
Patton	do																																
Portland***	Coast	.03			.01		.11											.01	.03		.01		.01						.08	.03			0.32
Presque Isle	St. John																																
Rumford	Androscoggin	.02	.22				.18			.01						T					.65								T	.25			1.35
Van Buren	St. John		.40		T		.14			.26	.08											.23							.06	.1	.69		1.77
Winslow	Kennebec		.06				.28			.08											.58	.05	T						.04	.22			1.31
New Hampshire.																																	
Alstead Center	Connecticut	.27					.03				.08										.04	.08	.03	.03					.05	.06			0.55
Bethlehem	do	.23	T				.24				.24					T													.12	.01	.48		1.49
Brookline	Merrimack	.28							.12								T				.10		T						.08	.01	.01		0.62
Concord***	do	.09	T				.01														.02	.38							.06	.01			0.57
Durham	do	.15					.02														.10	.01							.14	.01			0.43
Franklin	do	.18					.05														.15	.25	.12						.08	.04			0.87
Glencoff	do	.27					.18			.15											.43								.18	.43			1.68
Grafton	do																																
Hanover	Connecticut	.31	T	T	.01	T	.03	T		T	.12		T	T	T		.02	T	.01		.01	.05							.01	.05	.25		0.87
Keene	do	.31	T						.08													.10							.12	.13			0.74
Nashua	Merrimack	.24																			.33	.19	.02						.07	.01			0.86
Newton	do	.17							T												.47	T	.04						.13	.11			0.88
Plymouth	do	.30	T				.03				T																		.08	.22			0.67
Vermont.																																	
Bloomfield	Connecticut	.21		.05	.09		.20				.25					.08					.30	.28							.19	.04	.55		2.24
Burlington***	Champlain	.35	T				.27			.24						.11	.01				.60	.69	.02	.04					.45	.13	.71		3.62
Cavendish	Connecticut	.34	.16	.02							.04						T					.35		.04					.09	.22			0.87
Chelsea	do	.48					.12			.02	.08										T								.24	.18			1.51
Cornwall	Champlain	.50					.05			.20											.15	.06							.10	.80			1.86
Enosburg Falls	do	.34	.08				.19			.20								.04			1.30	.07							.48	T	.51		3.41
Hyde Park	do	.33	.03				.21			.01	.12							.02			.53	.06	.01						.36	.03	.39		2.10
Northfield***	Champlain	.28					.12			.03											.06	.36	.02	.03					.10	.37			1.57
Rutland	do		.32	.03			T	.04		.20	.02							T			.13	T	.02						.14	.34			1.12
Somerset	Connecticut	.37	.04	.06			.20	.04	.20	.02	.06										.07	.07	.01						.30	.17	.07		1.21
St. Johnsbury	do	.27	.04	.06			.20	.04	.20	.02	.06										.07	.07	.01						.14	.34			1.12
Vernon	do	.35	.12				T	.15			.17							.01			.03	.07	.01						.20	.03	.42		1.61
Wells	Champlain	.25					T	.15			.17										.08								.04	.08			0.64
Woodstock	Connecticut	.32					T				.09										.04	.05							.17	.12			1.06
Massachusetts.																																	
Amherst	Connecticut	.22	.46						.72													T	T						.28	.74			2.42
Ashland	Merrimack	.07					.02		.22												.81	.09							.20	.20			1.61
Bakers Bridge #	do	.15																			.46								.12				0.73
Bedford	do	.14					T		.12												.76	.46							.24	.02			1.74
Blue Hill	Coast	.03					.02		.22												.03 1.83	.66							.24	.14			3.17
Boston***	do	.01					T		.07												.37 1.10	.20	T						.13	.03			1.91
Brookton	Coast																																
Chestnut Hill	do	.04					.04	.12													.94	.24	.30						.05	.16	.09		1.98
Clinton	Merrimack						.02		.28												.41	.03							.11	.12			1.12
Concord	do	.16					T		.16												.67	.40							.14	.02			1.55
Fall River	Coast	.02					T		.17												.90 1.02	.03			.09	.05			.60	.05			2.93
Fitchburg	Merrimack	.16					T		.06			T									.20	.12	.02						.09	.07			0.72
Framingham	do	.09					.02		.20												.73	.16							.14	.14			1.50
Haverhill	do	.10					T	.04			.04										.68	.10							.12	.02			1.06
Hingham	Coast	T					.04		.17																								



Daily Temperatures for September, 1917.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean	
Maine.																																	
Bar Harbor	Maximum	70	71	74	72	68	68	64	62	66	62	61	62	72	24	64	64	75	65	82	77	63	61	59	60	66	74	80	73	68	63	68.0	
	Minimum	47	52	57	52	43	42	45	38	36	45	36	36	42	46	45	45	21	47	54	52	52	42	31	34	38	42	50	51	51	49	44.7	
Cornish	Maximum	67	79	80	74	72	63	68	65	75	64	62	71	80	81	68	66	77	75	85	74	75	65	63	67	72	77	82	70	75	61	71.8	
	Minimum	54	55	51	51	38	41	41	40	39	39	29	31	38	41	45	46	40	52	47	53	46	37	29	28	32	39	44	50	40	42	42.0	
Eastport	Maximum	65	68	71	66	64	59	60	58	59	54	57	60	66	63	56	61	69	62	72	61	63	55	56	56	57	72	75	59	64	55	62.0	
	Minimum	49	52	55	50	47	46	45	42	42	42	39	41	47	46	48	47	46	49	51	52	46	42	36	38	43	45	53	51	48	48	46.3	
Farmington	Maximum	67	76	72	72	67	63	65	68	72	62	58	69	75	76	66	61	69	65	78	82	70	69	63	58	67	69	76	78	67	66	69.4	
	Minimum	42	55	55	48	37	35	40	35	32	36	28	28	35	43	51	50	38	50	52	56	53	36	35	27	30	43	40	50	42	43	41.5	
Greenville	Maximum	72	69	68	62	61	60	56	64	65	63	48	66	73	70	56	66	71	75	79	63	58	53	61	68	69	75	81	63	60	56	64.7	
	Minimum	40	53	50	49	43	36	41	33	34	36	31	33	41	45	49	40	40	47	50	54	40	40	27	30	34	48	50	52	45	45	42.2	
Millinocket	Maximum	72	70	71	67	67	58	59	61	68	56	53	67	76	70	66	70	77	77	82	73	62	52	63	68	70	76	82	55	65	62	67.8	
	Minimum	42	56	52	51	37	36	45	31	23	41	32	29	39	43	44	40	35	41	49	56	52	35	27	30	32	42	50	51	47	51	41.6	
Orono	Maximum	74	75	73	75	67	60	62	66	65	67	56	64	77	78	74	64	78	75	81	81	64	63	61	67	68	73	80	80	65	64	66.6	
	Minimum	40	49	47	48	40	43	44	36	36	42	33	35	38	46	43	48	38	47	41	55	54	39	29	32	31	41	42	53	44	43	39.9	
Portland	Maximum	67	69	73	64	65	63	65	56	65	58	55	61	71	70	58	61	68	69	80	68	59	54	57	63	73	74	77	60	56	61	65.1	
	Minimum	51	55	60	51	48	49	50	46	42	40	39	38	45	50	50	49	46	51	51	57	52	48	39	36	39	47	55	54	48	50	47.8	
Presque Isle	Maximum	68	78	71	67	61	60	61	61	60	50	52	68						75	80	67	62	55	60	65	68	76	76	67	63	55	65.8	
	Minimum	47	60	54	46	43	40	45	40	40	42	36	34	42	44	54	48	43	52	56	59	43	40	32	35	37	46	48	50	45	48	45.0	
Rumford	Maximum	73	71	72	68	64	55	65	64	64	51	47	66	65	67	66	65	70	75	77	80	73	57	52	56	69	69	75	79	68	59	66.5	
	Minimum	73	70	72	68	64	55	65	64	64	51	47	66	65	67	66	65	70	75	77	80	73	57	52	56	69	69	75	79	68	59	66.5	
Van Buren	Maximum	60	56	50	48	35	35	40	29	35	31	30	34	41	38	38	31	33	41	41	45	16	38	23	29	28	32	40	54	36	32	37.8	
New Hampshire.																																	
Alstead Center	Maximum	60	77	72	63	62	66	63	65	68	58	54	64	75	77	69	62	67	73	77	78	74	57	60	64	69	70	74	67	65	61	67.0	
	Minimum	53	55	57	51	38	46	45	41	38	32	36	48	46	50	51	71	54	51	56	56	62	32	32	42	46	50	55	45	50	46.1		
Bethlehem	Maximum	64	77	68	64	62	65	59	64	67	58	49	64	70	72	63	66	69	72	76	70	61	56	46	58	64	65	67	74	65	63	57	64.8
	Minimum	46	55	51	45	37	41	35	36	41	33	29	32	40	41	50	51	39	50	49	57	49	40	27	32	34	44	42	47	44	49	42.2	
Concord	Maximum	61	74	75	70	69	67	66	64	70	56	59	70	78	79	72	65	61	76	84	76	68	61	61	63	71	76	79	72	71	59	69.6	
	Minimum	47	51	52	48	40	40	46	41	41	36	31	32	39	42	44	44	40	54	47	52	48	39	31	30	40	39	45	50	41	45	42.6	
Franklin	Maximum	65	83	74	71	69	68	66	69	72	71	60	72	79	81	72	71	76	72	86	79	70	62	65	67	75	78	82	71	73	64	71.8	
	Minimum	54	56	56	51	39	41	40	42	41	43	28	32	39	40	44	52	42	53	46	53	56	39	30	30	35	39	45	53	38	43	43.3	
Hanover	Maximum	61	82	71	67	67	67	65	68	70	62	57	71	77	79	71	71	74	78	84	77	67	59	65	69	74	78	82	72	72	64	70.7	
	Minimum	50	58	53	50	41	42	44	42	39	44	30	39	39	42	47	52	42	50	42	54	50	42	28	30	31	36	44	51	39	46	42.9	
Keene	Maximum	63	83	71	67	68	70	67	64	70	60	59	71	77	79	70	64	70	77	83	78	70	60	65	67	74	76	80	71	71	64	70.5	
	Minimum	47	57	55	47	37	39	37	43	39	39	26	28	34	37	43	53	35	54	38	49	53	33	26	26	41	37	40	52	38	42	40.8	
Plymouth	Maximum	63	78	72	66	61	60	61	60	70	60	55	67	70	72	65	65	70	74	79	74	66	58	58	63	70	73	76	68	69	58	66.8	
	Minimum	45	59	55	50	34	39	45	40	41	41	28	31	36	42	44	53	43	51	46	55	55	37	24	29	30	35	42	48	39	44	42.0	
Vermont.																																	
Burlington	Maximum	65	77	70	62	64	68	59	68	67	49	54	68	72	75	70	65	70	74	78	68	62	52	62	66	68	73	77	67	67	60	66.6	
	Minimum	50	62	55	49	42	52	42	41	45	40	37	42	45	45	56	51	45	47	54	56	56	32	31	42	38	46	48	53	52	50	46.8	
Enosburg Falls	Maximum	64	78	70	63	64	67	58	69	69	50	57	69	72	76	72	69	70	73	79	68	60	52	61	69	67	73	81	64	62	42	66.9	
	Minimum	40	60	46	51	36	44	34	36	43	33	34	37	38	40	55	58	52	54	48	53	50	38	28	35	33	45	43	62	44	51	43.8	
Northfield	Maximum	60	78	69	64	63	67	59	61	68	49	53	54	67	73	76	66	68	72	76	79	72	61	52	61	66	69	74	78	66	67	61	66.6
	Minimum	48	55	49	40	34	41	37	38	41	30	26	29	35	37	46	45	40	43	42	58	48	30	24	28	28	38	41	49	47	45	39.2	
St. Johnsbury	Maximum	70	80	74	68	67	64	69	69	72	66	58	70	77	79	74	74	79	78	82	77	69	59	65	71	73	78	80	74	66	64	71.5	
	Minimum	45	58	51	45	38	34	38	36	34	38	39	26	38	41	52	54	41	47	45	50	55	44	27	30	30	38	28	59	41	51	41.8	
Wells	Maximum	66	78	72	62	60	66	60	64	65	60	54	64	68	72	70	66	68	70	74	72	61	58	58	62	65	70	72	70	64	62	65.9	
	Minimum	51	60	55	49	42	48	42	48	50	31	32	38	48	45	54	54	54	52	50	56	52	44	30	35	38	50	52	56	45	50	47.4	
Massachusetts.																																	
Amherst	Maximum	61	82	78	72	71	72	73	65	71	61	63	74	80	82	75	64	74	80	81	85	81	76	65	68	68	76	79	79	70	67	72.8	
	Minimum	54	58	57	51	41	46	42	44	41	36	30	34	40	42	44	46	41	50	44	52	48	40	32	30	47	42	45	48	44	44	41.0	
Blue Hill	Maximum	68	75	72	67	66	64	64	58	67	57	57	66	72	69	61	59	59	65	79	76	70	59	51	52	66	73	77	62	69	57	65.4	
	Minimum	58	58	63	55	46	52	48	49	41	37	45	50	53	53	51	44	49	56	59	58	47	38	39	19	52	60	55	50	50	50	50.5	
Boston	Maximum	68	79	65	70	65	68	62	72	69	60	62	71	82	66	65	62	64	68	83	79	74	63	55	65	62	78	76	72	73	61	61	66.6
	Minimum	58	60	64	58	50	55	53	53	49	45	40	45	52	53	52	51	48	54	58	60	57	48	42	40	52	53	57	59	53	52	52.4	
Concord	Maximum	67	77	75	69	67	66	67	61	69	57	60	68	76	76	72	67																







## Daily Precipitation for September, 1917—Continued from page 69.

Stations.	Watersheds.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
<i>Rhode Island.</i>																																	
Block Island ***	Coast	.02						.02	.15									1.15	.90							.05				.47		.04	2.80
Bristol	do	T.						T.	.14									*	2.20		.02				*	.11			.43	.01		2.91	
Greene	do	.05						.02	.08									2.00								.15			.50	.07		2.87	
Hope Valley	do																																
Kingston	do	.11							.82									*	2.65							.12			.56	.04		3.80	
Narrag'sett Pier***	do	.14					.03		.22									.30	2.30		.07				.04	.14			.52	.05		3.81	
Pawtucket	do	.02						T.	.22									*	1.71		.04						.04	.32	.19		2.64		
Providence **	do	.01						T.	.11									.63	1.02		.02				.06	.02		.32	.09		2.28		
Wallum Lake	do	.10							.20									.88	.10		.20							.40	.15		2.03		
<i>Connecticut.</i>																																	
Bridgeport	Coast	.36						T.	.55										.82							T.			.48		.14	2.35	
Canton	Connecticut	.12						T.	T.									.40								T.			.10	.16		0.78	
Colchester	Coast	T.							.30									1.55										.45	.22		2.52		
Cream Hill	Housatonic	.26					.06																			T.			.35	.05		0.72	
Danielson	Coast	.02					.08		.08									1.20								.10			.40	.10		1.98	
East Hartland	do	.10																.21								.08		.15	.10		0.54		
Falls Village	Housatonic	.02					.02		.05																	.05		.26				0.40	
Hartford **	Connecticut	.04					.01		.05									.20	.62		T.					T.	.01		.21	.13		1.27	
Lake Konomocoff	Coast	.16							.32										2.75									.78	.10		4.11		
New Haven **	do	.20	T.					T.	.44									.41	.79							T.	.01		.37	.01		2.23	
New London	do	.20					.08		.30									3.00								.18		.59	.12		4.47		
N. Grosvenor Dale	do	T.					.08		.12									.71								T.		.18	.08		1.17		
Norwalk	do	.14						T.	.54									.40										.42	.03		1.53		
Southington	do	T.	.05					T.	T.	.05								.90								T.		.20	T.		1.20		
Storrs	Coast	.11																.72										.30	T.		1.13		
Torrington	Housatonic	.04	.15				.03		.05									.05								.02		.12	T.	.05		0.51	
Voluntown	Coast	.08					.02											2.08		.10						.13		.65	.08		3.14		
Waterbury	Housatonic	.03	T.						.13	T.	T.							.74								T.	T.		.46	.21		1.57	

## Special River Rainfall Stations.

Maine.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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## Daily Evaporation (inches) and Wind Movement (miles).

Gardiner, Me.	Evaporation	.13	.07	.14	.18	.15	.03	.15	.12	.12	.17	.11	.12	.10	.12	.06	.07	.11	.08	.16	.07	.15	.16	.10	.12	.07	.07	.10	.03	.10	.01		3.17
	Wind movement	50	50	50	50	50	60	80	30	59	90	70	70	40	30	20	30	40	90	50	60	90	50	20	40	30	30	30	60	50	20		1,500
Dorchester Cen-ter, Mass.	Evaporation	.138	.045	.051	.074	.119	.099	.025	.137	.065	.108	.163	.088	.032	.080	.093	.034	.122	.139	.091	.058	.035	.093	.088	.100	.026	.077	.078	.035		.065		2,395
	Wind movement	12	2	9	7	21	11	25	26	5	18	41	12	12	7	7	42	19	33	12	7	11	19	23	17	31	12	7	3	6	9		466

Observations taken at 6 p. m.

Observations taken at 7 a. m.

See temperature and precipitation data in Climatological Tables.

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations.

\*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

\* Precipitation indicated in that of following day.

T. Precipitation is less than 0.01 inch rain or melted snow.  
 † Post-office addresses of these stations are as follows: Lunenburg, Readington, Me.; Bakers Bridge, South Lincoln, Mass.; Lake Konomoc and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.; Moss Brook, Wendell Depot, Mass.; Priest Brook, Winchendon, Mass.; Sewall's Falls, Concord, N. H.

## Comparative Data for New England for September.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.								
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888	57.7	88	18	8.29		14	0	7	8	15		sw.	8.9	64	ne.	1903	61.0	95	23	1.60	3.65	5	0	19	7	4	77	sw.	7.9	60	s.
1889	53.3	90	17	4.11		13	0	8	7	15		ne.	10.1	65	ne.	1904	57.9	84	18	5.31	6.05	11	0	12	8	10	59	sw.	8.6	84	nw.
1890	60.4	85	20	5.40		13	0	10	7	13		sw.	8.3	48	sw.	1905	58.9	89	22	5.41	5.19	10	0	13	7	11	58	nw.	7.5	48	nw.
1891	61.8	92	30	2.28		10	0	13	10	7		sw.	7.6	48	ne.	1906	61.8	97	24	2.35	2.41	7	0	18	7	5	69	sw.	8.7	50	nw.
1892	58.5	88	27	2.24		7	0	18	7	6		sw.	9.0	52	sw.	1907	60.8	93	23	7.75	4.62	13	0	8	8	14	41	sw.	8.5	58	s.
1893	56.1	85	26	2.38		12	0	11	9	10		nw.	9.5	58	sw.	1908	62.5	95	23	1.09	2.10	3	0	19	6	5	64	sw.	8.3	53	s.
1894	62.6	92	25	3.46	1.50	9	0	9	12	52		sw.	9.1	60	nw.	1909	59.8	86	25	5.02	4.87	10	0	12	7	11	50	sw.	9.2	54	ne.
1895	62.6	92	21	2.45	2.16	8	0	14	10	6	65	sw.	9.2	65	nw.	1910	59.8	85	26	2.85	2.84	10	0	13	8	9	54	nw.	9.2	43	ne.
1896	59.0	96	21	6.16	8.31	13	0	9	8	13	46	sw.	11.4	75	nw.	1911	53.1	88	21	3.34	1.72	11	0	12	9	9	54	nw.	9.8	48	ne.
1897	59.4	97	25	2.19	2.56	7	0	16	8	6	63	nw.	12.3	64	nw.	1912	53.2	92	25	3.20	2.41	10	0	10	9	11	47	sw.	9.8	44	ne.
1898	62.6	95	25	2.95	2.95	10	0	15	8	7	60	sw.	8.6	55	ne.	1913	58.6	96	19	3.25	4.02	8	0	16	6	8	59	sw.	9.8	51	s.
1899	58.9	88	23	4.68	6.30	10	0	14	7	9	51	nw.	10.0	54	sw.	1914	69.2	97	18	0.93	1.70	5	0	17	8	5	71	nw.	9.8	48	w.
1900	62.6	93	25	3.12	3.12	8	0	15	8	8	62	nw.	8.3	65	sw.	1915	63.4	96	25	1.79	2.78	6	0	17	7	6	63	nw.	9.4	62	nw.
1901	61.6	91	21	3.31	3.48	10	0	16	5	9	61	sw.	7.8	69	s.	1916	60.3	93	28	3.53	3.09	9	0	16	7	7	64	sw.	9.6	48	nw.
1902	61.6	95	27	4.49	3.03	12	0	12	6	12	51	ne.	7.9	40	e.	1917	57.1	90	21	1.60	3.00	7	0	17	7	6	63	sw.	8.2	67	ne.



U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

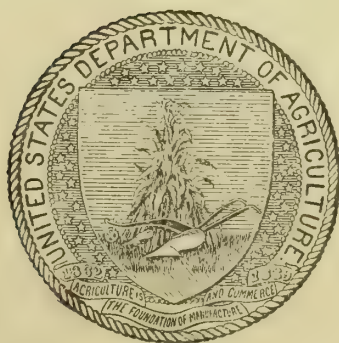
NEW ENGLAND SECTION

OCTOBER, 1917

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BY  
JOHN W. SMITH  
METEOROLOGIST

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
NOVEMBER 19, 1917



Departure of the Mean Temperature from the Normal, October, 1917.





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

VOL. XXIX. BOSTON, MASS., OCTOBER, 1917. No. 10.

## GENERAL SUMMARY.

Cool fall weather continued to prevail through October, the average temperature,  $46.9^{\circ}$ , being the lowest for the month since 1907, when it was  $45.3^{\circ}$ . The minimum temperatures were not much, if any, below the average, but the day temperatures were generally lower than usual, only scattered stations having maxima of  $70^{\circ}$  or higher. The rainfall was much above the normal, and with three exceptions, was the greatest for October since the beginning of the record in 1888. The monthly totals were between 5 and 7 inches at the greater number of stations. Snow fell over a considerable portion of northern Maine, northern New Hampshire, and the mountain sections of northeastern Vermont on the 12th. So far as reported the amounts were moderate, less than two inches, except in some localities in northern Maine, where there was from 8 to 10 inches. The amount of sunshine was somewhat less and the number of rainy days greater than the average. As practically all tender vegetation had been killed by frost in September, there was no further damage from this element. The conditions were generally favorable for harvesting and fall work.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 13 stations reporting, was 30.06 inches, which was .02 inch above the normal for the month, and .10 inch below the mean for October, 1916. The highest monthly mean was 30.07 inches, at New Haven, Conn.; the lowest, 30.04 inches, at Eastport, Me. and Northfield, Vt. The highest recorded was 30.48 inches, at Portland, Me. on the 18th; the lowest, 29.17 inches, at the same station on the 30th. The monthly range for the section was 1.31 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 81 stations, was  $46.9^{\circ}$ , which was  $3.6^{\circ}$  below the mean for October, 1916. During the past 29 years the average October temperature has been higher in 22 and lower in 7 years than that of the present month. The highest average October temperature during this period was  $54.3^{\circ}$ , in 1913; the lowest,  $44.2^{\circ}$ , in 1888. The average temperature for the several States of the section was as follows: Maine,  $45.3^{\circ}$ ; New Hampshire,  $44.9^{\circ}$ ; Vermont,  $44.2^{\circ}$ ; Massachusetts,  $49.3^{\circ}$ ; Rhode Island,  $49.4^{\circ}$ ; Connecticut,  $48.6^{\circ}$ . The average temperature for the section was  $1.9^{\circ}$  below the normal for the month. The departures from the normal for the several States were as follows: Maine,  $-1.4^{\circ}$ ; New Hampshire,  $-2.0^{\circ}$ ; Vermont,  $-2.3^{\circ}$ ; Massachusetts,  $-1.3^{\circ}$ ; Rhode Island,  $-3.2^{\circ}$ ; Connecticut,  $-2.4^{\circ}$ . The highest monthly mean was  $52.6^{\circ}$ , at Nantucket, Mass.; the lowest,  $40.4^{\circ}$ , at Somerset, Vt. The highest recorded was  $81^{\circ}$ , at Patten, Me. on the 1st; the lowest,  $19^{\circ}$ , at Chelsea, Vt. on the 23d. The greatest local monthly range was  $57^{\circ}$ , at Patten, Me.; the least,  $24^{\circ}$ , at Nantucket, Mass. The greatest daily range was  $44^{\circ}$ , at Patten, Me. on the 23d.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 13 stations reporting, was 80 per cent, which was 4 per cent above the mean for October, 1916, and 3 per cent above the normal for the month. The highest monthly average was 88 per cent, at Eastport, Me.; the lowest, 74 per cent, at New Haven, Conn.

## PRECIPITATION.

The average for the section, as determined from the records of 81 stations, was 5.81 inches, which was 3.87 inches above the average for October, 1916. During the past 29 years the average October precipitation has been greater in 3 and less in 26 years than that of the present month. The greatest average October precipitation during this period was 7.34 inches, in 1890; the least, 1.10 inches, in 1897. The average precipitation for the several States of the section was as follows: Maine, 5.64 inches; New Hampshire, 5.76; Vermont, 6.20; Massachusetts, 5.55; Rhode Island, 5.42; Connecticut, 6.18. The average monthly precipitation for the section was 2.16 inches above the normal for the month. The departures from the normal for the several States were as follows: Maine,  $+2.04$  inches; New Hampshire,  $+2.74$ ; Vermont,  $+3.08$ ; Massachusetts,  $+1.78$ ; Rhode Island,  $+1.29$ ; Connecticut,  $+2.21$ . The greatest monthly amount was 9.21 inches, at Canton, Conn.; the least, 3.49 inches, at New London, Conn. The greatest amount in 24 hours was 2.88 inches, at Durham, N. H. on the 25th. The average number of days with .01 inch or more of precipitation was 13, which was 6 more than the average for October, 1916, and 4 more than the normal for the month.

## WIND.

The prevailing direction of the wind was from the south; the normal direction for the month is from the northwest, as determined from the records of the past 29 years. The greatest monthly wind movement at any station was 15,232 miles at Blue Hill Observatory, Hyde Park, Mass.; the least, 4,118 miles, at Amherst, Mass. The average hourly velocity was 11.4 miles, which was 0.3 mile above the average for October, 1916, and 0.9 mile above the normal for the month. The highest recorded velocity was 84 miles per hour from the south, at Blue Hill Observatory, Hyde Park, Mass. on the 30th. This equals the previous highest recorded velocity for the month, which was 84 miles per hour from the east, in 1894.

## SUNSHINE AND CLOUDINESS.

The average number of clear days for the section was 11; partly cloudy, 7; cloudy, 13, which compares with the normal for the month of 12 clear, 8 partly cloudy, and 11 cloudy days. The average percentage of possible sunshine, as determined from records of 11 stations having self-recording instruments, was 49, which was 15 per cent below the average for October, 1916, and 5 per cent below the normal for the month, as determined from the records of the past 25 years. The greatest percentage of possible sunshine at any station was 59, at Providence, R. I.; the least, 16, at Northfield, Vt. The greatest percentage of possible sunshine in any October since the beginning of the automatic records in 1894, was 69, in 1905; the least, 29, in 1913.

## DATES OF MISCELLANEOUS PHENOMENA.

*Halos, Lunar.*—North Bridgton, Me., 2; Bethlehem, N. H., Northfield, Vt., Blue Hill and Boston, Mass., 26; Woodstock, Vt. and Boston, Mass., 27.

*Auroras.*—Eastport, Me., 3, 13; Madison, North Bridgton, Me., Berlin, Hanover, Newton, N. H., Fall River, Leominster, Mass., 28; Rockport, Mass., 29.

*Halos, Solar.*—Woodstock, Vt., Blue Hill, Boston, Somerset, Mass., New Haven, Conn., 26th; Blue Hill and Boston, Mass., 29th; Boston, Mass., 4, 15; New Haven, Conn., 4, 18.

*Thunderstorms* (dates and number of observers reporting on each): Maine—13th, 1; 25th, 1; 28th, 2. New Hampshire—27th, 1; 28th, 5; 30th, 1. Vermont—1st, 1; 16th, 2; 27th, 1; 28th, 1; 29th, 1. Massachusetts—5th, 8; 15th, 8; 25th, 1; 27th, 6; 28th, 16; 30th, 3. Rhode Island—5th, 2; 27th, 2; 28th, 3; 30th, 1. Connecticut—5th, 8; 6th, 1; 9th, 1; 12th, 1; 15th, 6; 27th, 10; 28th, 5; 29th, 1; 30th, 4.



## Climatological Data for October, 1917.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				No. of days.				Prevailing direction of wind.	Observer.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.			Cloudy.
Maine.																				
Bar Harbor	Hancock	20	31	47.3	-0.7	63	1	28	18	25	6.72	+2.65	1.30	0	14	17	4	10	sw.	Mount Desert Nurseries.
Cornish	York	778	62	46.9	-0.6	71	3	25	21†	38	5.25	+1.35	1.90	T	14	8	9	14	s.	T. H. West.
Eastport	Washington	53	45	46.2	-0.4	61	1	32	18	19	4.01	+0.16	1.24	0	14	10	9	12	s.	U. S. Weather Bureau.
Farmington	Franklin	450	20	44.7	-3.9	66	6	25	23	31	5.86	+2.65	1.42	T	17	10	5	16	sw.	State Normal School.
Gardiner	Kennebec	163	25	46.6	-2.6	67	4	27	18	30	5.16	+1.19	1.48	0	14	8	9	14	w.	Samuel D. Soule.
Greenville	Piscataquis	1,140	13	42.1		61	30	27	18†	32	6.40	+3.04	1.69	1.0	19	5	11	15	sw.	U. S. Weather Bureau.
Houlton	Aroostook	362	15	44.8		64	2	24	18	24	4.97	+2.13	1.27	8.0	10	9	6	16	sw.	Bangor & Aroostook RR.
Langtown	Franklin	1,500	1																	Langtown Co.
Lewiston	Androscoggin	185	34	46.2	-1.0	65	3	30	18†	30	6.71	+3.03	1.92	0	14	10	9	12	sw.	Union Water Power Co.
Madison	Somerset	257	14	43.8		68	3	26	18	32	5.10	+0.87	1.18	0	12	16	3	12	w.	William Jardine.
Millinocket	Penobscot	386	14	44.0		64	19†	26	27	28	6.78	+3.07	1.59	0.8	14	11	1	19	s.	Great Northern Paper Co.
North Bridgton	Cumberland	450	24	46.4	-2.7	70	17	27	29	36	4.68	+1.41	1.19	0	16	8	6	17	s.	C. L. Chadbourne.
Orono	Penobscot	129	48	46.4	+0.2	68	1	26	23	30	5.89	+1.87	1.42	3.0	15	17	6	8	sw.	Maine State College.
Patten	do	550	15	46.8		68	1	24	31	44	8.20	+4.09	2.00	4.0	9	18	1	18	ne.	Bangor & Aroostook RR.
Portland	Cumberland	99	46	47.0	-2.1	63	27	33	12	22	4.09	+0.43	1.14	0	16	13	3	15	s.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	8	43.1		64	31	24	18†	32	6.13	+2.91	1.20	10.0	15	11	6	14	e.	E. M. Libby.
Rumford	Oxford	505	24	45.2	-1.5	63	19	30	18†	30	5.24	+2.14	1.59	T	15	13	4	14	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	13	41.6		63	30	26	18	25	5.28	+1.79	0.90	2.5	12	2	12	17	sw.	Rev. J. M. Thomas.
Winslow	Kennebec	90	22	46.5	-1.2	65	19†	24	18	31	5.14	+2.00	1.24	0	13	14	4	13	sw.	Hollingsworth & Whitney
New Hampshire.																				
Alstead Center	Cheshire	1,120	13	45.3	-3.0	65	19†	30	12†	33	6.55	+3.47	2.39	0	14	13	4	14	sw.	Frank Dewing.
Berlin	Coos	1,090	20	43.2		66	19	25	22	31	5.90		2.23	0	12	6	10	15	sw.	Benlin Mills Co.
Bethlehem	Grafton	1,470	25	41.2	-5.0	64	19	25	21†	30	5.60	+2.60	2.21	1.5	13	4	10	17	w.	Benjamin Tucker.
Concord	Merrimack	350	57	46.8	-1.9	69	19†	26	12	32	3.54	+0.30	1.14	0	16	14	4	13	se.	U. S. Weather Bureau.
Durham	Stafford	88	22	47.0	-2.1	70	19†	27	12†	34	7.09	+3.89	2.88	0	13	16	1	14	nw.	N. H. Agr. College.
Franklin	Merrimack	440	18	46.8	-1.0	69	3	26	23	36	4.89	+1.82	1.53	0	16	10	8	13	nw.	Dr. C. F. Webster.
Glenciff	Grafton	1,650	4	41.4		62	3†	26	31	33	6.81		1.65	2.0	15	7	7	17	nw.	State Sanatorium.
Grafton	do	863	31																	P. R. Kimball.
Hanover	do	603	83	45.2	-1.2	69	19	23	23	36	5.49	+2.35	1.90	0	16	1	11	19	s.	Dartmouth College.
Keenes	Cheshire	506	32	46.0	-1.6	68	3†	22	21	39	5.62	+2.72	1.80	0	15	10	7	14	sw.	Samuel Wadsworth.
Nashua	Hillsboro	125	32																	C. B. Stevens.
Newton	Rockingham	126	29	46.2	-2.2	71	19	24	23	31	6.32	+2.72	2.77	0	9	13	9	9	sw.	W. C. Gale.
Plymouth	Grafton	500	29	44.3	-0.4	65	3†	24	29	31	5.60	+2.37	2.36	0	13	8	3	20	w.	Mrs. Hattie G. Trow.
Vermont.																				
Bloomfield	Essex		10	43.9		66	20	23	23	35	7.08	+4.31	2.05	0	23	2	12	17	se.	Lyman Falls Power Co.
Burlington	Chittenden	404	10	44.8	-2.1	69	19	28	23	27	5.76	+2.59	1.55	T	18	3	6	22	s.	U. S. Weather Bureau.
Cavendish	Windsor	910	14	46.8		66	20	29	17	37	5.37	+2.17	1.48	0	17	6	4	16	sw.	Colonial Power Co.
Chelsea	Orange	840	22	42.4	-2.8	65	19†	19	23	36	5.67	+3.08	1.50	2.0	14	4	2	23	s.	W. F. Dewey.
Cornwall	Addison	517	24	46.4	-3.3	70	3†	28	21†	31	6.60	+4.02	2.37	T	15	6	2	23	s.	C. H. Lane.
Enosburg Falls	Franklin	601	26	44.0	-3.3	68	19	23	23	34	7.09	+3.99	1.75	1.0	19	7	11	13	s.	J. W. Pomeroy.
Hyde Park	Lamoille	576	5	43.1		69	19	21	31	33	6.54		1.86	0	17	4	9	17	w.	A. V. Wiswell.
Northfield	Washington	876	31	42.3	-1.3	66	19	22	23	31	5.82	+3.34	1.95	T	19	2	3	26	s.	U. S. Weather Bureau.
Rutland	Rutland	562	1	44.3		70	19	23	23	38	5.79		1.30	0	14	8	19	4	se.	George H. Ross.
Somerset	Windham	2,096	6	40.4		62	3	21	31	35	8.26		2.45	0	20	3	10	18	nw.	Power Construction Co.
St. Johnsbury	Caledonia	711	24	44.9	-1.5	66	19†	23	23	29	5.63	+3.06	1.32	0	16	7	4	20	s.	Fairbanks Museum.
Vernon	Windham	310	2	46.6	-1.5	68	2	26	17†	34	5.07	+1.51	1.54	0	9	14	7	10	nw.	Conn. River Power Co.
Wells	Rutland	750	26	43.8	-4.2	66	19	26	21	28	6.15	+3.19	1.82	0	15	7	5	19	sw.	E. R. Pember.
Woodstock	Windsor	700	25	45.2	-0.6	71	1	21	23	39	5.49	+2.18	1.77	T	11	5	7	19	sw.	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	28	47.4	-1.6	70	27	27	21	31	6.60	+3.10	2.73	0	12	10	7	14	sw.	Mass. Agr. College.
Blue Hill	Norfolk	640	33	48.6	-0.9	67	19	32	21	29	6.88	+2.72	1.85	0	16	11	6	14	s.	Blue Hill Observatory.
Boston	Suffolk	124	47	51.9	-0.4	71	19†	37	12	28	5.33	+1.47	1.81	T	14	11	6	14	sw.	U. S. Weather Bureau.
Chestnut Hill	do	124	37	51.0	-1.0	70	19	29	12	31	6.38	+2.44	2.53	0	11	22	0	9	sw.	Met. Water Board.
Clinton	Worcester	370	21	48.7		69	30	30	21	41	5.74	+1.65	1.94	0	13				sw.	Do.
Concord	Middlesex	139	27	47.4	-2.0	70	30	26	12†	32	5.26	+2.18	2.08	0	14	11	10	10	s.	Fred A. Tower.
Fall River	Bristol	200	51	50.4	-2.8	67	30	33	21	27	5.69	+1.63	1.85	0	17	7	19	5	sw.	C. V. S. Remington.
Fitchburg	Worcester	550	34	47.8	-1.3	70	2	28	21	29	4.42	+0.63	1.15	0	13	14	7	10	nw.	Dr. A. P. Mason.
Framingham	Middlesex	160	37	49.7	-0.5	70	30	29	12†	28	5.24	+1.43	2.10	0	15				sw.	Met. Water Board.
Lawrence	Essex	51	33	49.0	-1.0	69	19†	30	12	29	5.22	+1.77	2.03	0	12	8	15	8	s.	Essex Company.
Lowell	Middlesex	100	32	50.0	-0.1	68	30	29	21	28	5.04	+1.55	1.95	0	11				sw.	Props. Locks & Canals.
Nantucket	Nantucket	47	31	52.6	-1.9	64	11	40	12	20	4.59	+1.20	1.60	0	12	6	15	5	sw.	U. S. Weather Bureau.
New Bedford	Bristol	88	105																sw.	City Engineer.
Plymouth	Plymouth	50	32																sw.	Miss L. B. Knapp.
Provincetown	Barnstable	40	30	51.0	-1.6	71	22	36	12	26	3.82	-0.09	1.36	0	11	19	5	7	s.	Gideon Bowley.
Rockport	Essex	25	15	51.5		65	4	34	31	24	4.72		0.83	0	16	17	3	11	sw.	U. S. C. G. Station.
Rutland	Worcester	1,160	15	45.7		66	27	27	31	35	7.01		2.38	T	15	14	2	15	sw.	State Sanatorium.
Springfield	Hampden	199	7	50.7	-0.1	71	27	30	20	29	4.46	+0.36	1.61	0	14	11	9	11	sw.	U. S. Army.
Turners Falls	Franklin	200	31	47.4	-2.5	69	19	28	21	25	6.83	+3.82	2.21	0	12	11	5	15	sw.	Turners Falls Co.
Westboro	Worcester	298	43	49.8	-1.4	70	19	30	12	28	6.86	+3.11	2.85	0	10				w.	Miss E. W. Newcomb.
Williamstown	Berkshire	711	36	45.8	-2.3	67	19	28	21†	31	5.05	+1.86	1.70	0.4	12	9	9	13	sw.	Williams College.
Worcester</																				



Daily Precipitation for October, 1917.

Stations.	Watersheds.	Day of month.																															Total.						
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31							
Maine.																																							
Ashland	St. John				.08	.04	.70			.10	.68	.41	1.10	.31		.10	.10				1.30					1.20					.18	.42	6.72						
Bar Harbor	Coast																																5.25						
Cornish	Saco				.11	.28	.35			.03	.01	.04	T.	.62		.12	T.				1.30					1.90	.04			.54	.06	.85	.30	5.16					
Eastport***	Coast	.10			.02	.08	.23				.02	.01	1.20		.24		.10				1.24			.18		T.	.27		T.	.02	T.	.30		4.01					
Eustis	Kennebec																																						
Farmington	do				.22	.27	.35			.01	.04	.01	.13	.14	.48		.18	.08				37				T.	1.42			.56	.04	1.16	.40	5.86					
Gardiner	do				.09	.06	.21			.06	.13	.38	.09	.32		.07	T.									T.	1.48			.30	.06	1.85	.30	5.16					
Greenville**	do	.02			.14	.20	.36			.08	.16	.01	.14	.16	.27		.35	.16	.06							T.			.54	.06	1.69	.39	6.40						
Houlton	St. John				.03	.50				.05	.38			.65	.51		.33		.06							T.	1.34	T.		.54	.06	1.69	.39	6.40					
Howe Brook	Penobscot																																4.97						
Langtown	Kennebec																																						
Lewiston	Androscoggin				.10	.22	.28			T.	.17	.04	.33		.44		.06					1.26				.62	1.30			.43	T.	1.42	.04	6.71					
Madison	Kennebec				.21	.67				.11	.04	T.	.28	.48		.22										1.11				.14		.23	1.18	5.10					
Millinocket	Penobscot				.15	.43	.02	.02		.12	.13	T.	.79	.31	T.		.36					.75				1.59				.31	T.	.21	1.59	6.78					
North Bridgton	Saco				.19	.12	.33			T.	.12	.03	.21	.04	.54		.23					.09				.03	1.19			.46	.05	.90	.15	4.68					
Orono	Penobscot	.14			.05		.46			.12	.08	.47	.05	1.42	.19		.03	.10				1.13			.03		.77					.11	.86	5.80					
Patten	do									.60			.40				.80	1.00								2.00				1.00		.80	1.00	8.20					
Portland***	Coast				.05	.15	.07			.10	.01	.35	.05	.20		.06						.60					.90	.24		.02	.23	T.	.94	4.09					
Presque Isle	St. John	.11			.02	T.	.45	.20		.35	.20	T.	1.20		.45		.20	.20				.10	.62				.70			.30	.10	.20	1.20	6.13					
Rumford	Androscoggin				.10	.45	.20			.04	T.	T.	.24	.17	.33		.21					.01	.15				.80	.33		.57	.05	1.59		5.24					
Van Buren	St. John	.90			T.					.26	T.		.70	.23		.43											.37		.03		.46	.65	5.28						
Winslow	Kennebec				.15	.07	.23			.08	.09	.45	.32				.04				1.10					1.24				.03	1.14		5.14						
New Hampshire.																																							
Alstead Center	Connecticut				.10	.20	.61			T.	.06	T.	.03		.80		.24				T.	T.				.48	.30			.58	.10	2.39	.06	6.55					
Berlin	Androscoggin	.25			.21	.74				.13	T.	T.	T.	.46	T.	.01	.22				.09					1.18				.18		.20	2.23	5.90					
Bethlehem	Connecticut				.38	.36	.47			.13	.22			.32		.19										1.12	.32			.39	.07	2.21		5.06					
Brookline	Merrimack				T.	.43				.05	.20	.03		.45		.14						.30				2.04				.48		.125		5.56					
Concord***	do				.04	.35	.13			.03	.62	.03	T.	.40		.09					T.	.08	.04			.84	.01		.16	.16	.02	1.15		3.54					
Durham	do					.02	.36					.11	.24		.32		.06									.31	2.88			.26		1.28	.21	7.09					
Franklin	do				.10	.09	.55			T.	.03	.03	.03		.51		.12	.03								.39	.56			.55	.05	1.53	.05	4.89					
Glencoff	do	.06			.14	.43	1.00	.02		.22			.02	.4			.20									1.15	.02			.34	2.20	.20		6.81					
Grafton	do																																						
Hanover	Connecticut	.02	T.	T.	.22	.64	.26			.07	T.	T.	.03	.03	.55		.34	T.								.11	.11			.40	.15	1.90	.02	5.49					
Keene	do				.11	.08	.70			T.	.03	T.	.03		.65		.29				.01	T.				.00	.12			.72	.10	1.80	.09	5.62					
Nashua	Merrimack																																						
Newton	do				T.	.51				.12	T.	T.	.14	.35		.08										1.03				.13	T.	1.19		6.32					
Plymouth	do	T.			T.	.25	.44			.07	T.	T.	T.		.63		.20									.10	.58			.18	1.62	.36	.09	5.60					
Vermont.																																							
Bloomfield	Connecticut	.12	.11		.63	.27	.33	.02		.15	.17	.03	.01		.46	.12	.36	.15	.02							.16	.34	.05		.44	.22	2.05	.45	7.08					
Burlington***	Champlain				.20	.32	.22																																
Cavendish	Connecticut	.02			.65	.55	.25			.12			.07	.52		.06																							
Chelsea	do	.08			.36	.25	.21			.03	T.			.45	.10	.25	T.									.52	.55			.40	.08	1.48	.04	5.35					
Cornwall	Champlain	.05		.03	.36	.25	.21			.03	T.			.45	.10	.25	T.													.34	.08	1.50	.10	5.67					
Enosburg Falls	do	.37	.04	.04	.59	.27	.12	T.		.44			.10	T.	.17	.40	.30													.60	.20	2.37		6.60					
Hyde Park	do	.27	.04		.61	.26	.30			.30			.07	.26		.39														.45	.31	1.75	.08	7.09					
Northfield***	Champlain	.08			.27	.48	.06			.16			.04	.69		.26	.09	.10									.70				.11	.31	T.		42	.31	1.86	.23	6.54
Rutland	do	.01		.02	.61	.40	.06			.02	.14		T.	T.	.64	T.	.02	.15									.29	T.			.43	1.30	1.23		5.79				
Somerset	Connecticut	.02	.04		.54	.10	.34			.02	.14		T.		.38		.31										.07	1.10	.03		.60	*	1.20	1.45	8.26				
St. Johnsbury	do	.03	.01	T.	.57	.44	.39			.09	.10		T.		.70		.32										.50				.05	.53		.32	.20	1.32	.39	5.63	
Vernon	do				.50	.08				.02			T.		.70		.32										.45	.54			.95		.45	1.54		5.07			
Wells	Champlain	T.			.50	.34	.25			.10	.16			T.	.69		.32																						
Woodstock	Connecticut				.22	.45	.35			.09				T.	.70		.28										.96				.46	.14	1.82		6.15				
Massachusetts.																																							
Amherst	Connecticut				.35					.15	.09	.01		.78		.15						.05					1.01				.85	.05		2.73		6.60			
Ashland	Merrimack				.02	.25				.15			.19	.58		.04					.03	.75					2.05				.39		1.06		5.51				
Bakers Bridgeff.	do				.42	.17				.13			.53		.08												.85	1.20			.30				4.36				
Bedford	do				.03	.26	.16			.10	.05	.07		.44		.12	.03				.03						1.31	.22			.25		1.21		4.89				
Blue Hill	Coast	.01			.01	.24	.09			.18	.09	.77		.52		.08	.11				.05	T.	.60				1.74	.14			.40	T.	1.85		6.88				
Boston***	do				T.	.28	.07			.14	T.	.20	.42	.04	.02	.02		.01	.03	.35							1.81												

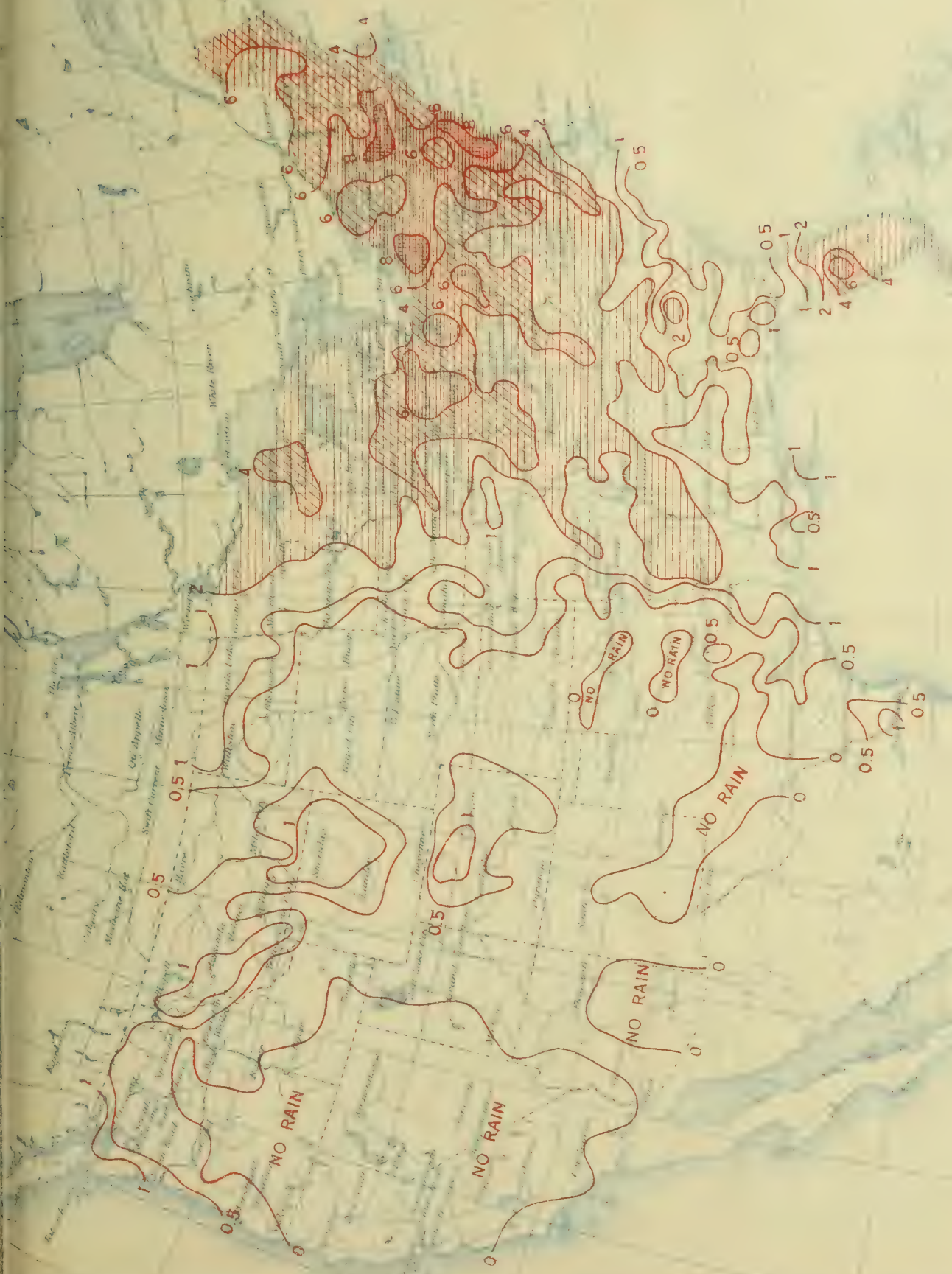


## Daily Temperatures for October, 1917.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean		
Maine.																																		
Bar Harbor	Maximum	63	61	58	58	58	60	54	55	54	44	42	49	58	58	53	60	54	48	56	60	53	47	51	46	53	55	60	62	57	58	57	54.9	
	Minimum	50	42	47	50	42	42	32	41	41	36	35	34	39	42	44	46	36	28	43	43	33	37	31	36	40	36	35	45	44	40	41	39.7	
Cornish	Maximum	68	63	71	60	48	67	52	60	53	47	42	60	60	63	58	63	61	57	69	62	57	65	58	44	54	64	62	64	48	65	52	58.8	
	Minimum	42	34	33	43	33	43	30	41	35	39	34	28	39	32	32	33	34	29	48	42	25	35	25	38	40	34	32	64	28	39	31	35.0	
Eastport	Maximum	61	59	55	55	53	57	49	52	52	43	44	49	56	54	50	48	49	54	58	48	44	48	47	53	53	53	55	59	48	59	50	47.20	
	Minimum	43	41	45	49	40	39	35	41	42	38	38	36	43	38	45	42	35	32	45	43	38	38	36	40	40	40	40	37	42	37	42	37.4	
Farmington	Maximum	60	62	60	58	64	66	50	58	52	48	42	52	60	56	52	59	52	50	60	48	48	48	54	44	50	54	58	48	61	60	54.6		
	Minimum	40	39	37	48	33	42	27	43	33	31	35	28	40	33	38	33	37	24	43	30	26	33	25	32	37	31	28	37	37	38	32	34.8	
Greenville	Maximum	49	54	60	52	49	51	53	50	46	40	37	47	58	54	47	49	42	47	57	58	49	48	50	41	47	44	50	47	42	43	43	49.6	
	Minimum	41	39	37	45	31	40	32	39	34	32	32	32	37	35	36	34	33	27	40	38	31	34	35	32	37	30	27	38	29	35	29	34.6	
Millinocket	Maximum	55	60	60	57	55	56	52	52	50	42	39	50	58	56	50	52	45	49	64	60	54	48	52	43	52	46	50	53	45	64	61	35.4	
	Minimum	46	40	38	50	37	42	28	42	36	33	34	32	35	33	37	37	35	29	40	42	32	35	27	32	38	30	26	31	30	38	33	35.4	
Orono	Maximum	68	69	60	57	55	59	60	57	57	47	39	48	58	58	56	56	55	48	60	61	53	50	52	54	52	52	57	57	58	65	60	37.0	
	Minimum	45	39	41	44	35	42	36	41	39	32	35	32	37	35	38	39	35	27	42	45	35	38	26	35	40	47	52	36	63	57	49	59	33.9
Portland	Maximum	60	62	58	59	50	63	49	55	49	45	40	61	57	53	55	59	53	50	59	57	49	56	49	47	56	56	61	41	39	35	40	34	40.1
	Minimum	49	42	41	45	41	41	39	44	39	38	35	33	43	37	44	44	39	39	49	49	49	44	42	37	40	42	50	48	50	60	62	49.6	
Presque Isle	Maximum	58	61	62	54	57	49	54	53	50	43	42	43	50	54	49	48	45	50	63	52	55	42	48	55	52	50	48	50	42	43	43	43	49.3
	Minimum	39	30	33	48	33	41	28	37	35	32	30	34	33	35	35	37	30	24	37	38	31	35	26	30	36	28	24	36	35	45	32	33.5	
Rumford	Maximum	52	56	61	58	46	56	43	54	50	46	40	52	56	56	52	52	49	50	68	62	51	56	52	42	47	52	60	54	42	42	45	37.8	
	Minimum	46	42	40	44	37	43	38	45	38	40	36	34	44	39	36	35	34	31	38	38	32	37	32	36	40	36	33	42	30	41	36	37.8	
Van Buren	Maximum	48	55	55	54	51	50	65	44	45	40	40	40	48	54	48	57	45	49	62	59	51	40	50	42	53	48	48	51	48	63	54	49.3	
	Minimum	38	37	41	43	33	40	30	36	33	32	31	30	33	31	37	37	30	26	37	42	31	30	31	30	35	32	30	31	33	38	33	34.0	
New Hampshire.																																		
Alstead Center	Maximum	57	60	63	58	51	55	54	54	51	49	42	51	50	53	54	55	49	54	65	63	47	50	45	48	45	55	60	55	46	65	40	53.0	
	Minimum	47	39	40	46	38	43	38	41	41	36	30	32	31	42	40	42	40	45	47	37	30	30	30	38	38	42	42	41	32	30	37	37.6	
Bethlehem	Maximum	50	43	42	46	42	41	42	40	42	43	43	52	50	53	51	50	47	57	64	63	47	52	50	43	46	52	53	55	45	63	38	45.4	
	Minimum	43	40	38	30	37	36	33	35	35	34	35	27	33	34	38	30	37	47	35	25	27	25	25	35	37	37	37	36	28	33	29	34.0	
Concord	Maximum	64	66	63	60	48	61	54	59	48	45	44	55	55	58	64	61	55	54	69	59	54	57	52	47	49	49	49	49	49	49	49	34.7	
	Minimum	45	44	38	42	36	43	33	42	38	41	31	26	36	33	40	39	36	37	49	37	29	37	29	39	42	40	39	37	28	37	34	37.3	
Franklin	Maximum	61	68	69	61	55	61	57	61	52	46	45	56	58	60	62	61	57	55	68	60	58	58	27	26	36	40	39	33	45	43	39	34	36.2
	Minimum	41	42	37	46	34	44	31	40	36	39	38	27	34	30	33	36	32	34	45	48	45	45	40	45	49	61	64	50	43	65	42	55.4	
Hanover	Maximum	57	65	62	59	47	56	56	57	48	48	48	52	54	58	54	57	54	58	69	68	55	55	47	45	49	49	49	49	49	49	49	49	35.0
	Minimum	43	39	31	41	32	44	33	42	31	34	38	32	31	32	50	37	33	27	35	48	39	57	57	27	23	40	40	40	40	40	40	40	40.1
Keene	Maximum	62	66	68	57	53	62	79	61	53	47	46	56	55	59	61	62	57	59	68	66	57	57	52	47	45	49	55	40	31	35	40	24	37.0
	Minimum	29	34	29	50	33	45	35	38	23	38	39	29	29	29	29	37	32	25	38	32	25	34	50	40	22	27	52	40	40	40	40	40	40.1
Plymouth	Maximum	52	59	65	60	50	57	55	54	51	49	48	54	51	55	53	56	50	53	65	62	49	54	50	45	49	55	60	55	43	63	45	53.8	
	Minimum	42	35	34	48	31	42	31	43	32	38	39	28	34	33	30	31	32	30	43	40	27	33	25	35	40	36	30	43	24	37	30	34.8	
Vermont.																																		
Burlington	Maximum	55	58	62	57	54	47	51	51	45	47	50	50	48	54	54	51	48	57	69	46	47	45	44	44	46	54	59	53	55	63	38	51.7	
	Minimum	46	40	50	44	38	42	36	40	35	31	35	31	38	42	46	40	35	37	42	36	28	30	28	38	40	47	47	37	35	38	35	38.0	
Enosburg Falls	Maximum	53	59	60	58	58	48	53	52	44	49	50	50	50	55	53	52	48	59	68	66	50	45	47	44	45	57	59	57	46	63	44	52.8	
	Minimum	44	38	41	40	33	40	32	39	32	28	39	27	37	37	41	36	32	28	54	32	25	25	23	38	38	37	36	41	33	37	33	35.3	
Northfield	Maximum	52	61	60	55	47	49	54	48	43	46	46	50	48	54	52	52	47	53	66	64	48	50	47	43	44	56	61	57	48	63	39	51.2	
	Minimum	45	37	37	34	32	40	30	34	31	27	30	28	38	35	40	34	27	33	46	38	25	24	22	34	39	34	36	28	27	32	32	33.3	
St. Johnsbury	Maximum	58	62	60	59	51	50	56	52	48	49	48	54	55	56	52	55	51	57</															



Scale of Shading





## Daily Precipitation for October, 1917—Continued from page 77.

Stations.	Watersheds.	Day of month.																														Total.			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		31		
Rhode Island.																																			
Block Island***	Coast					T.	10			15		06	41							33	49				1.30			T.	46		1.72		5.0		
Bristol	do					*	11			08	13		57			T.	02			*	1.05				1.13			*	41		1.59		5.0		
Greene	do					25				29		17	61								75				2.07				34		1.23		5.7		
Hope Valley	do																																		
Kingston	do					14				23		12	60				01			98					2.10				48		1.80		6.4		
Narrag'sett Pier***	do					04	14			17	05	11	36			T.	03			*	1.04				1.30			03	43		1.77		5.5		
Pawtucket	do					T.	38			20	02	20	65			T.	01		T.	*	67				1.94				38		2.05		6.4		
Providence***	do					T.	09	09		T.	16	02	13	57	T.					T.	01				1.23			02	40	05	1.66		5.0		
Wallum Lake	do					18	20			30	10	05	60				10			80					2.10			47		1.35		6.2			
Connecticut.																																			
Bridgeport	Coast					13	10	25		T.	20		56	03		T.	03			01	61				1.74			T.	45	T.	1.33		5.4		
Canton	Connecticut					T.	*	95			91		15	60			T.	10			41				2.80			61		T.	2.68		9.2		
Colchester	Coast					T.				47		T.	76							45				2.03			40			1.86		6.0			
Cream Hill	Housatonic					04		65	75	02	15	10	85			15	10			30				96			60			2.00		6.1			
Danielson	Coast					20		20	70		20	70				05				80				1.48			35			1.50		5.4			
East Hartland	do					68				14	13	18	82			10				32				3.42			91			36	2.01	9.0			
Falls Village	Housatonic					37	50			11		05	90			29	02		01	15	15			87			60	07	10	2.12		6.4			
Hartford**	Connecticut					T.	55	05		03	11	06	61			T.	04			59	11			1.08			33	03	T.	1.71		5.3			
Lake Konomocoff	Coast																																		
New Haven***	do					T.	26	05		01	21		T.	61		T.	02			28	10			1.65			25		T.	1.22		4.0			
New London	do					11				39		33	70			06	05			28							37			1.20		3.4			
N. Grosvenor Dale	do					02	05	32		07	03	13	80			06	02			68				1.57			52			1.62		5.8			
Norwalk	do					*	62			28			67							*	25			1.69			47			2.68		6.7			
Southington	do					05	50			05	05		50			T.				69				1.50	40		40			2.30	0.05	6.1			
Storrs	Coast					30	16	63		12		T.	77			05				50				1.27						1.92		6.6			
Torrington	Housatonic					05	03			15	11	T.	02	76			07			26				22	1.66				1.08		70	1.23	7.4		
Volutown	Coast					*	18			10		40	17			83			04				65		*	2.00		41			1.10		5.5		
Waterbury	Housatonic					T.	T.	T.		06	72	T.	T.	23	02		80	T.	02	03		T.		67	T.	T.	T.	2.04	67	T.	82	T.	2.61	0.03	8.7

## Special River Rainfall Stations.

Maine.																																			
Brownville	Saco					22	08			06	10		50	32		26				80				03	1.18			31		12	1.85	5.82			
Mattawamkeag	Penobscot					32				13	65	T.		16	60	T.	1.35	23		43				98	15			12		10	0.98	6.98			
New Hampshire.																																			
Franklin Junction	Merrimac					10	80				10	10		10		T.	28			10				10	1.20			55		70		4.13			
Lancaster	Connecticut																																		
Manchester	Merrimac					17				03	39		08	12	03	02	43		T.	12		01		27			01	1.22		39		1.13	86	4.23	
Sewall's Falls #1	do					10				40	40	05		03			41		12				16			95		31		1.33		3.88			
West Stewartstown	Connecticut					24	12	11	12		24	16		40			25	03	11	75				48			46		35		1.10	85	5.77		
Vermont.																																			
Bellow's Falls	Connecticut					07				T.	22	62	T.		04		03		76		05	19		05	T.	29			T.	57		65	52	2.05	6.11
Wells River	do					40	20				36	68		18		30		30		26				22			14		20		60	58	4.12		
White River Junction	do					08				09	07	73	03	05		T.		60		T.	17			35			51		40		1.06	97	5.11		
Massachusetts.																																			
Holyoke	Connecticut					12				02	53		09	11	08	07	77			15		T.		02			03	97		52		36	1.85	5.63	

## Daily Evaporation (inches) and Wind Movement (miles).

Gardiner, Me. . .	{	Evaporation . . . .	.16	.09	.06	.05	.03	.04	.04	.04	.10	.04	.07	.03	.19	.05	.03	.08	.09	.04	.04	.04	.03	.04	.08	.06	.06	.04	.04	.04	.09	.06	.00	.02	1.67
		Wind movement . .	91	50	70	70	31	91	40	51	119	199	137	40	119	49	80	90	61	31	100	108	58	94	27	125	137	42	27	108	38	145	134	2,505	
Dorchester Cen- ter, Mass. . . .	{	Evaporation . . . .	.089	.091	.062	.057	.054	.037	.042	.032	.046	.052	.048	.031	.059	.054	.025	.016	.033	.040	.011	.031	.040	.055	.049	.036	.000	.029	.025	.026	.083	.000	.000	1,302	
		Wind movement . .	7	35	10	6	12	25	14	6	21	53	43	52	0	15	8	7	33	12	3	25	41	53	29	58	81	13	9	7	49	25	65	817	

† Observations taken at 6 p. m.

‡ Observations taken at 7 a. m.

See temperature and precipitation data in Climatological Tables.

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations.

\*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

T. Precipitation is less than 0.01 inch rain or melted snow.

Precipitation indicated in that of following day.

† Post-office addresses of these stations are as follows: Litchfield, Relington, Mass.; Bakers Bridge, South Lincoln, Mass.; Lake Conitate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.; Moss Brook, Wendell Depot, Mass.; Priest Brook, Winchendon, Mass.; Sewall's Falls, Concord, N. H.

## Comparative Data for New England for October.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.									
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	
1888....	44.2	74	8	5.33	.....	11	6	5	4	15	.....	nw.	10.5	52	e.	1913....	50.1	79	10	3.63	4.83	10	T.	12	7	12	58	nw.	11.5	62	ne.	
1889....	45.1	81	6	1.53	.....	12	6	5	4	14	.....	n.	11.0	72	n.	1914....	49.4	81	11	2.25	2.40	8	T.	14	7	10	54	nw.	10.0	83	s.	
1890....	47.7	81	12	7.34	.....	15	6	6	.....	10	15	.....	nw.	10.1	78	n.	1915....	49.3	85	10	1.63	1.90	5	0	15	7	6	69	w.	8.7	60	w.
1891....	45.1	91	10	3.82	.....	10	0	9	10	12	.....	nw.	11.5	72	ne.	1916....	50.1	80	15	4.30	5.19	8	0	11	8	12	48	ne.	9.7	60	ne.	
1892....	41.6	84	21	1.50	.....	9	0	12	11	9	.....	s.w.	10.0	47	nw.	1917....	45.3	78	10	4.66	3.22	8	0	15	7	9	58	nw.	10.1	66	s.	
1893....	51.6	88	11	1.01	.....	7	0	12	11	7	.....	nw.	9.9	61	se.	1918....	52.1	93	14	2.94	3.54	7	0	17	5	9	55	nw.	9.1	56	n.	
1894....	52.2	80	23	4.95	3.79	13	0	19	8	13	.....	s.w.	12.0	81	e.	1919....	48.6	92	13	1.60	1.65	8	0	12	10	9	53	nw.	9.6	50	n.	
1895....	45.2	77	9	5.03	5.02	8	T.	12	11	8	.....	s.w.	12.0	61	e.	1920....	51.9	89	10	1.65	3.86	8	0	15	7	9	51	nw.	11.7	54	sw.	
1896....	45.2	78	12	3.54	3.00	13	0	8	7	13	.....	n.	12.6	75	ne.	1921....	48.6	78	15	4.04	6.14	11	0	13	6	12	46	nw.	9.6	58	ne.	
1897....	51.1	91	18	6.54	3.00	11	0	18	7	6	.....	nw.	11.5	60	ne.	1922....	51.9	89	19	2.91	4.83	8	0	17	6	8	57	sw.	10.6	60	ne.	
1898....	51.1	91	18	6.54	3.00	11	0	11	8	12	.....	nw.	10.1	60	e.	1923....	51.3	87	20	6.69	3.61	13	0	7	6	18	29	n.	11.3	65	s.	
1899....	51.2	84	14	2.61	2.50	7	0	11	8	12	.....	nw.	9.1	57	ne.	1924....	52.6	87	8	2.21	3.27	5	T.	14	8	9	54	sw.	9.3	53	nw.	
1900....	53.9	85	15	3.65	2.50	19	0	11	8	12	.....	nw.	9.9	63	nw.	1925....	51.3	82	18	2.77	2.10	9	0	13	7	11	50	sw.	10.2	60	ne.	
1901....	49.8	82	15	2.95	1.80	6	0	17	8	12	.....	nw.	9.8	52	w.	1926....	50.5	87	17	1.94	2.22	7	0	17	7	7	64	sw.	11.1	66	w.	
1902....	49.4	79	14	4.97	3.10	9	T.	12	9	10	.....	sw.	10.3	72	sw.	1927....	46.9	81	19	5.81	2.88	13	0	11	7	13	49	s.	11.4	84	s.	



ST. 1.05  
NNG

U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

NOVEMBER, 1917

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BY  
JOHN W. SMITH  
METEOROLOGIST

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
DECEMBER 19, 1917



Departure of the Mean Temperature from the Normal, November, 1917.



Shaded portions show excess (+).  
Unshaded portions show deficiency (-).  
Lines show amount of excess or deficiency.



## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

VOL. XXIX. BOSTON, MASS., NOVEMBER, 1917. No. 11.

## GENERAL SUMMARY.

The month was colder than usual, with more than the average amount of sunshine and clear weather, and deficient in precipitation. The average temperature was the lowest for November since 1904, and has been lower in but two months of this name since the beginning of the record in 1888. The daily temperatures were below the normal during the greater part of the month, but with no very low readings until the last week, when minima from zero to  $-20^{\circ}$  occurred in parts of the northern States, and from  $5^{\circ}$  to  $15^{\circ}$  in the southern portion of the section. The average precipitation was the least of any November of record. Very little or none occurred during the first 19 days; from the 20th to the 24th there were moderate amounts, with several inches of snow in the interior of the northern States; on the 28th there was a moderate snowfall over the greater portion of the section. The ground, in the northern portion of the section, was generally covered with snow during the last 10 days of the month, with depths in some localities of from 6 to 10 inches; in the southern portion it was bare until the last three days when there was 1 or 2 inches at most stations. The average number of clear days was greater than in any previous November of record, and the amount of sunshine has been exceeded but once.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 13 stations reporting, was 30.05 inches, which was normal for the month, and .05 inch below the mean for November, 1916. The highest monthly mean was 30.10 inches, at Burlington, Vt.; the lowest, 29.94 inches, at Eastport, Me. The highest recorded was 30.70 inches, at Burlington, Vt. on the 27th; the lowest, 29.34 inches, at Eastport, Me. on the 24th. The monthly range for the section was 1.36 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 80 stations, was  $33.5^{\circ}$ , which was  $3.2^{\circ}$  below the mean for November, 1916, and the lowest for any November since 1904. During the past 29 years the average November temperature has been higher in 27 and lower in 2 years than that of the present month. The highest average November temperature during this period was  $42.0^{\circ}$ , in 1896; the lowest,  $32.5^{\circ}$ , in 1904. The average temperature for the several States of the section was as follows: Maine,  $30.7^{\circ}$ ; New Hampshire,  $31.2^{\circ}$ ; Vermont,  $29.5^{\circ}$ ; Massachusetts,  $36.8^{\circ}$ ; Rhode Island,  $37.8^{\circ}$ ; Connecticut,  $36.5^{\circ}$ . The average temperature for the section was  $3.6^{\circ}$  below the normal for the month. The departures from the normal for the several States were as follows: Maine,  $-2.8^{\circ}$ ; New Hampshire,  $-3.6^{\circ}$ ; Vermont,  $-4.4^{\circ}$ ; Massachusetts,  $-3.3^{\circ}$ ; Rhode Island,  $-5.0^{\circ}$ ; Connecticut,  $-3.5^{\circ}$ . The highest monthly mean was  $40.2^{\circ}$ , at Nantucket, Mass.; the lowest,  $24.1^{\circ}$ , at Van Buren, Me. The highest recorded was  $70^{\circ}$ , at Patten, Me. on the 1st; the lowest,  $-20^{\circ}$ , at Van Buren, Me. on the 28th. The greatest local monthly range was  $80^{\circ}$ , at Patten, Me.; the least,  $38^{\circ}$ , at Nantucket, Mass. and Block Island, R. I. The greatest daily range was  $46^{\circ}$ , at Voluntown, Conn. on the 14th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 13 stations reporting, was 72 per cent, which was 2 per cent below the mean for November, 1916, and 3 per cent below the normal for the month. The highest monthly average was 85 per cent, at Eastport, Me.; the lowest, 61 per cent, at New Haven, Conn.

## PRECIPITATION.

The average for the section, as determined from the records of 80 stations, was 0.96 inch, which was 2.00 inches below the average for November, 1916, and the least for the month since the beginning of the record in 1888. The previous minimum amount for the month was 1.17 inches, in 1908; the greatest average November precipitation during this period was 6.38 inches, in 1897. The average precipitation for the several States of the section was as follows: Maine, 1.27 inches; New Hampshire, 0.72; Vermont, 0.90; Massachusetts, 0.99; Rhode Island, 0.31; Connecticut, 0.99. The average for the section was 2.36 inches below the normal for the month. The departures from the normal for the several States were as follows: Maine,  $-1.98$  inches; New Hampshire,  $-2.20$ ; Vermont,  $-1.76$ ; Massachusetts,  $-2.65$ ; Rhode Island,  $-3.80$ ; Connecticut,  $-2.58$ . The greatest monthly amount was 2.16 inches, at Bar Harbor, Me.; the least, 0.19 inch, at Block Island, R. I. The greatest amount in 24 hours was 1.20 inches, at New London, Conn. on the 29th. The average snowfall for the section was 4.3 inches, which was 0.8 inch below the average for November, 1916, and 0.4 inch below the normal for the month, as determined from the records of the past 30 years. The greatest average snowfall in any November during this time was 17.5 inches, in 1898; the least, trace, in 1890. The average snowfall for the several States was as follows: Maine, 7.4 inches; New Hampshire, 4.9; Vermont, 6.1; Massachusetts, 2.2; Rhode Island, 1.8; Connecticut, 1.3. The average number of days with .01 inch or more of precipitation was 5, which was 4 less than the average for November, 1916, and 5 less than the normal for the month.

## WIND.

The prevailing direction of the wind was from the northwest, which is the normal direction for the month, as determined from the records of the past 30 years. The greatest monthly wind movement at any station was 14,390 miles, at Block Island, R. I.; the least, 3,721 miles, at Amherst, Mass. The average hourly wind movement was 11.2 miles, which was 0.2 mile below the average for November, 1916, and 0.4 mile below the normal for the month. The highest recorded velocity was 57 miles per hour from the northwest, at Blue Hill Observatory, Hyde Park, Mass. on the 26th. This is lower than the usual maximum velocity for the month.

## SUNSHINE AND CLOUDINESS.

The average number of clear days was 16; partly cloudy, 6; cloudy, 8, which compares with the average for the month of 10 clear, 8 partly cloudy, and 12 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 57, which was 5 per cent above the average for November, 1916, and 15 per cent above the normal for the month, as determined from the records of the past 25 years. The greatest percentage of possible sunshine in any November during this time was 58, in 1903; the least, 32, in 1896. The greatest percentage of possible sunshine at any station was 73, at Providence, R. I.; the least, 32, at Burlington, Vt.

## DATES OF MISCELLANEOUS PHENOMENA.

*Halos, Solar.*—Northfield, Vt., 6; Boston, Mass., 11; New Haven, Conn., 11, 15, 19, 27.

*Halos, Lunar.*—Northfield, Vt., Boston, Nantucket, Mass., Block Island, R. I., 27; Blue Hill, Mass., 19, 20, 27; New Haven, Conn., 19, 27.

*Auroras.*—Cornish, Eastport, North Bridgton, Me., 12, 13; Portland, Me., 12; Rumford, Me., Berlin, Bethlehem, Newton, N. H., Burlington, Vt., Concord, Mass., Kingston, R. I., Hartford, Conn., 13; Hanover, N. H., 11, 12, 19; Enosburg Falls, Vt., 8, 14.



Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				No. of days.				Observer.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.	Cloudy.	Prevailing direction of wind.	
<b>Maine.</b>																				
Bar Harbor	Hancock	20	31	33.9	-5.0	58	6	6	28	29	2.16	-2.53	0.75	4.2	9	20	4	6	nw.	Mount Desert Nurseries.
Cornish	York	778	62	34.1	-1.0	68	6	-4	29	45	1.17	-2.67	0.72	9.5	4	12	11	7	nw.	T. H. West.
Eastport	Washington	53	45	32.3	-4.5	53	6	6	28	22	1.72	-2.36	1.07	1.0	9	8	7	15	nw.	U. S. Weather Bureau.
Farmington	Franklin	450	20	31.0	-2.1	61	6	-7	29	37	1.72	-2.26	0.68	7.0	6	14	9	7	nw.	State Normal School.
Gardiner	Kennebec	163	25	33.6	-3.1	63	6	-5	29	35	1.33	-2.47	0.30	11.5	6	20	3	7	nw.	Samuel D. Soule.
Greenville	Piscataquis	1,140	13	27.2		50	18	-4	28	29	1.26	-1.77	0.49	9.1	9	9	5	16	nw.	U. S. Weather Bureau.
Houlton	Aroostook	362	15	28.4		46	7	-6	30	28	0.90	-1.28	0.50	8.0	7	11	10	9	w.	Bangor & Aroostook RR.
Langtown	Franklin	1,500	1																	Langtown Co.
Lewiston	Androscoggin	185	34	32.3	-3.4	64	6	-2	30	34	1.10	-2.08	0.48	10.3	6	17	8	5	n.	Union Water Power Co.
Madison	Somerset	257	14	29.8		55	19	-9	35	33	0.28	-1.94	0.24	3.0	3	22	2	6	nw.	William Jardine.
Millinocket	Penobscot	386	14	28.3		51	5	-7	29	33	1.98	-1.50	0.91	6.2	6	11	3	16	w.	Great Northern Paper Co.
North Bridgton	Cumberland	450	24	33.2	-3.8	64	6	-4	29	39	0.99	-2.46	0.34	4.0	4	17	5	8	n.	C. L. Chadbourn.
Orono	Penobscot	129	48	33.4	-0.8	58	6	-1	30	43	1.55	-2.21	0.64	2.8	5	17	6	7	nw.	Maine State College.
Patten	do	550	15	26.7		70	1	-10	29	36	1.20	-1.75	1.00	8.0	2	5	3	18	ne.	Bangor & Aroostook RR.
Portland	Cumberland	99	46	34.6	-3.0	58	6	10	27	27	0.82	-2.98	0.63	2.9	4	20	3	7	nw.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	8	24.6		48	6	-14	28	31	1.35	-1.10	0.30	22.5	7	11	5	14	n.	E. M. Libby.
Rumford	Oxford	505	24	31.5	-2.6	5	18	-2	29	31	1.06	-2.20	0.62	8.8	4	22	2	6	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	13	24.1		45	5	-20	28	32	1.81	-1.02	0.65	13.5	7	11	8	11	nw.	Rev. J. M. Thomas.
Winslow	Kennebec	90	22	32.8	-1.6	60	6	-5	30	37	0.98	-2.02	0.47	7.2	5	22	2	6	n.	Hollingsworth & Whitney
<b>New Hampshire.</b>																				
Alstead Center	Cheshire	1,120	13	31.8	-3.2	56	18	-2	27	27	0.59	-2.46	0.32	6.0	3	22	1	7	nw.	Frank Dewing.
Berlin	Coos	1,090	20	27.6		54	18	-8	26	36	0.41	-2.50	0.10	3.9	7	9				

The departures from normal temperature and precipitation are computed only for such stations as have ten or more years of record, but all complete reports are used in determining section or State means. Reference letters, <sup>a</sup>, <sup>b</sup>, <sup>c</sup>, appearing in the table indicate number of days missing; for example, <sup>b</sup> represents two days, etc.

<sup>1</sup> Also on other dates. \*Received too late to be included in means and summaries. \*\*Temperature data are from observed readings of the dry bulb; means are computed from observed readings. † Precipitation is less than 0.01 inch rain or melted snow. ‡ Thermometers not supplied by Weather Bureau.

† Stations and users of these stations are as follows: Cornwall, Middlebury, Vt.: Blue Hill, Hyde Park, Mass.: Cream Hill, W. Cornwall, Conn.: Canton, Collinsville, Conn.



Day of month.

Continued on page 88.

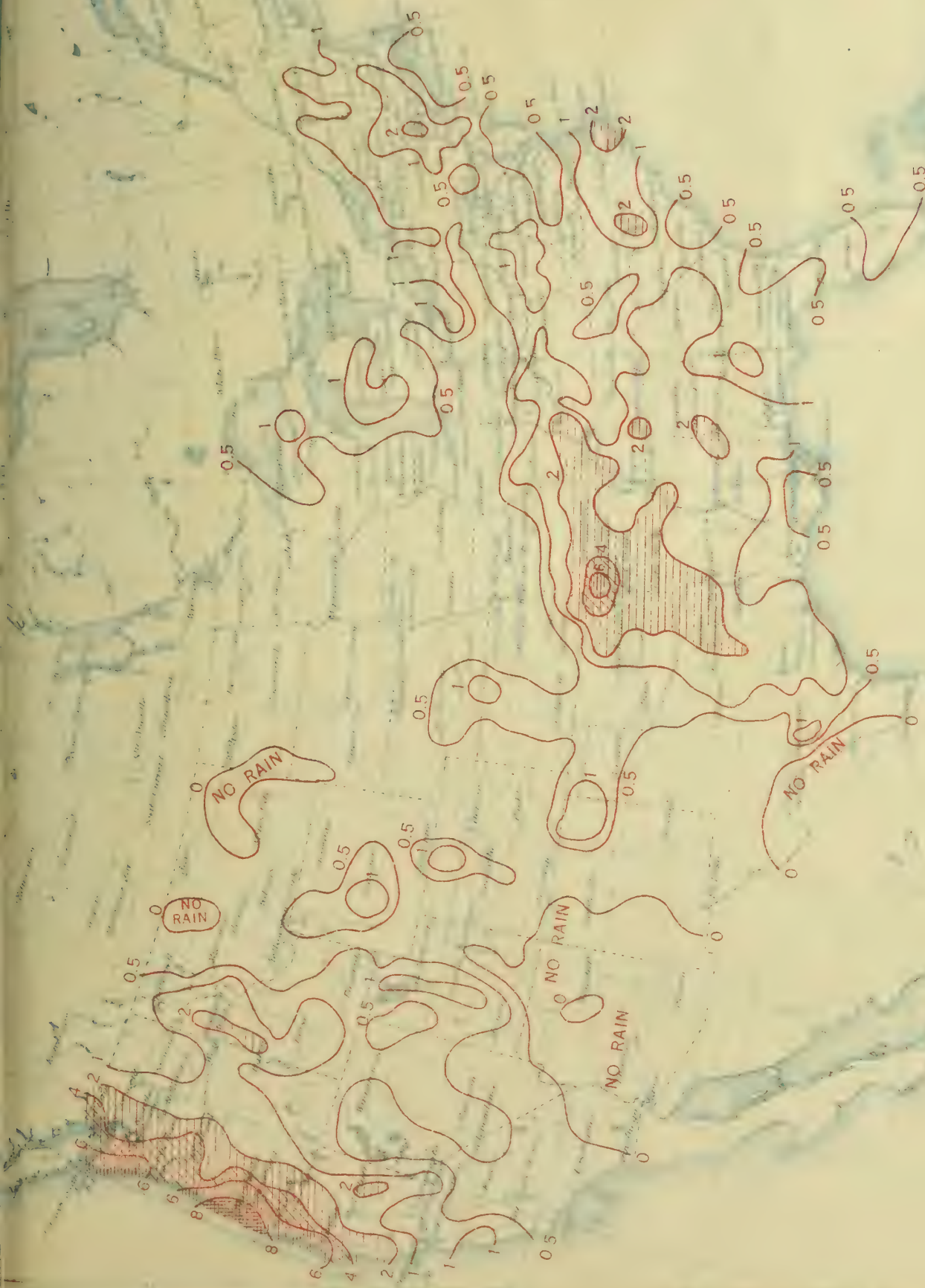


### Stations.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean	
Maine.																																	
Bar Harbor	Maximum	50	48	40	39	49	58	53	43	43	40	41	41	44	50	44	48	57	55	36	42	37	40	41	34	25	21	25	28	33	.....	41.6	
	Minimum	32	27	27	31	26	36	31	26	30	36	32	33	22	27	29	34	27	32	26	18	34	29	33	33	19	15	10	6	16	10	.....	26.2
Cornish	Maximum	50	53	48	50	59	68	44	55	60	55	49	53	49	55	63	48	58	67	53	35	41	37	37	48	33	32	32	21	35	37	.....	47.5
	Minimum	27	25	22	30	20	28	20	19	24	28	12	25	15	23	18	22	17	22	17	13	31	31	30	28	21	11	0	6	4	0	.....	20.7
Eastport	Maximum	48	46	43	40	45	53	37	37	38	39	38	35	37	40	45	39	44	47	44	38	39	38	44	43	32	23	18	24	24	33	.....	38.3
	Minimum	36	33	35	30	28	34	32	29	30	30	26	26	22	29	32	32	27	32	22	20	31	28	37	41	16	16	8	6	18	13	.....	26.3
Farmington	Maximum	45	49	41	44	45	61	43	45	51	50	45	44	43	49	54	44	51	56	47	31	38	38	35	35	30	24	15	22	15	27	.....	40.7
	Minimum	23	22	25	25	23	35	23	25	29	30	24	29	17	26	17	33	27	25	21	20	30	28	28	28	13	12	4	0	7	4	.....	21.2
Greenville	Maximum	38	42	36	35	46	46	34	37	39	40	37	34	38	39	46	34	48	55	40	26	36	30	32	30	24	15	12	11	23	28	.....	34.0
	Minimum	30	23	30	29	26	33	26	34	26	26	16	27	21	25	19	31	24	31	27	15	26	26	26	22	8	1	4	5	1	.....	20.5	
Millinocket	Maximum	40	45	38	38	51	43	35	42	39	41	40	35	40	41	47	38	46	50	45	27	37	30	32	30	25	20	19	12	25	28	.....	30.0
	Minimum	30	25	29	25	20	35	30	28	28	30	24	27	16	21	17	31	22	30	19	17	22	24	27	25	12	13	5	3	7	5	.....	23.6
Orono	Maximum	50	45	45	38	49	58	58	45	42	44	42	43	44	67	54	54	48	54	51	40	37	47	32	35	35	27	20	18	26	32	.....	42.7
	Minimum	31	24	30	31	22	32	31	28	29	35	21	37	31	24	26	35	22	27	23	17	28	28	30	32	17	13	7	4	9	1	.....	24.1
Portland	Maximum	46	48	45	44	54	58	40	47	53	47	43	43	46	47	52	40	50	58	40	38	40	42	37	43	31	26	23	21	29	36	.....	42.2
	Minimum	33	32	30	30	28	35	31	28	35	33	28	31	27	34	32	28	31	23	22	35	31	34	31	18	14	10	13	14	13	.....	27.1	
Presque Isle	Maximum	42	43	37	35	45	48	40	34	35	36	38	34	37	37	38	36	42	48	42	26	30	25	30	31	25	18	15	10	17	19	.....	33.1
	Minimum	31	25	30	27	17	24	28	25	23	17	25	11	17	18	12	21	12	24	18	11	7	5	25	22	15	13	2	14	10	9	.....	16.1
Rumford	Maximum	42	42	40	42	51	54	37	45	46	46	42	38	42	49	53	40	46	56	32	32	38	34	36	36	22	20	18	16	30	33	.....	38.4
	Minimum	28	28	31	32	29	35	29	25	34	30	28	30	24	28	22	32	31	23	24	33	32	33	32	35	14	12	4	6	2	.....	24.6	
Van Buren	Maximum	43	46	37	33	45	42	38	38	40	38	39	42	34	34	35	34	36	35	32	26	33	28	29	30	25	16	14	7	19	20	.....	32.1
	Minimum	34	25	28	28	16	27	26	23	26	19	24	25	17	18	17	20	18	17	9	13	7	23	21	12	13	1	20	13	4	.....	16.1	
New Hampshire.																																	
Alstead Center	Maximum	40	41	40	36	46	54	47	39	40	43	44	41	40	48	54	42	45	56	49	36	40	41	41	36	22	17	15	17	30	.....	39.0	
	Minimum	25	30	30	30	23	31	27	33	31	27	30	30	20	28	29	31	28	32	22	21	32	32	32	22	13	12	2	12	16	.....	24.6	
Bethlehem	Maximum	40	40	34	35	43	48	34	34	42	40	36	36	35	44	48	35	41	52	47	32	34	37	37	33	21	13	11	15	23	34	.....	35.1
	Minimum	26	28	28	26	19	23	22	17	23	26	17	26	16	21	24	23	21	26	17	16	31	31	32	21	3	7	7	0	15	8	.....	19.7
Concord	Maximum	48	47	46	43	54	63	37	46	54	49	46	46	46	56	61	45	51	65	38	40	44	36	36	38	28	22	21	21	35	34	.....	43.2
	Minimum	30	28	30	29	24	37	30	28	32	31	26	24	17	26	21	33	32	26	20	17	34	32	34	28	17	13	8	10	10	7	.....	24.5
Franklin	Maximum	49	47	47	44	55	63	52	44	54	48	47	42	46	58	62	49	53	62	58	34	43	37	35	36	30	22	24	21	39	30	.....	44.4
	Minimum	25	25	26	32	20	30	29	26	31	36	21	21	14	30	20	34	29	28	24	14	30	31	32	30	14	14	6	8	13	5	.....	23.3
Hanover	Maximum	46	45	43	41	51	48	43	52	45	47	40	44	53	55	41	52	57	39	34	39	81	36	35	29	19	18	20	34	32	.....	40.4	
	Minimum	24	27	29	28	18	18	27	22	26	28	16	21	16	16	16	16	16	16	16	17	13	31	31	32	27	11	12	2	7	10	.....	20.1
Keene	Maximum	48	46	43	42	54	60	50	45	54	51	49	45	47	57	60	45	53	60	53	40	43	40	38	37	30	24	23	24	36	36	.....	44.4
	Minimum	22	26	25	26	19	69	29	21	19	24	17	22	13	15	17	34	20	20	25	20	33	22	33	30	17	15	5	11	6	11	.....	20.9
Plymouth	Maximum	43	44	40	40	48	53	48	48	39	49	45	42	39	40	50	54	40	47	60	56	26	38	34	37	36	29	14	20	31	26	.....	39.6
	Minimum	25	24	24	33	24	35	29	25	25	33	23	20	15	34	16	34	30	30	23	10	26	32	30	28	11	13	4	5	11	3	.....	22.4
Vermont.																																	
Burlington	Maximum	43	42	42	35	42	43	32	41	59	45	42	41	38	45	44	37	45	50	28	36	36	36	85	27	21	21	14	22	30	35	.....	36.6
	Minimum	31	32	33	26	22	27	28	22	35	26	22	28	18	25	33	30	26	28	20	20	28	30	27	20	9	10	1	12	17	14	.....	23.3
Enosburg Falls	Maximum	45	43	37	35	42	44	34	39	47	43	41	38	39	16	41	36	39	50	33	36	36	39	38	30	25	19	14	27	30	37	.....	36.8
	Minimum	32	28	32	25	18	20	26	17	27	25	16	28	15	17	24	31	21	27	20	16	27	29	26	5	10	11	12	11	5	.....	20.3	
Northfield	Maximum	43	44	38	36	46	48	31	40	48	45	44	38	39	49	52	36	49	59	29	37	37	34	36	30	19	19	15	17	32	31	.....	37.3
	Minimum	26	28	31	20	16	17	24	21	30	22	16	22	14	20	20	27	22	22	9	10	32	32	30	17	6	8	6	8	10	1	.....	18.1
St. Johnsbury	Maximum	46	41	39	36	49	47	43	41	48	44	46	40	42	51	50	40	50	48	44	40	38	36	38	36	27	18	19	17	13	30	.....	38.9
	Minimum	29	28	29	30	18	19	24	19	24	37	15	26	16	16	17	33	20	22	21	13	30	32	32	25	8	12	3	3	12	1	.....	20.4
Wells	Maximum	40	40	36	34	38	46	40	35	45	40	40	36	34	40	45	40	40	50	48	32	35	38	35	30	28	16	15	22	30	35	.....	36.1
	Minimum	24	31	29	28	19	24	24	17	26	32	23	28	17	20	28	30	22	32	20	20	32	30	31	23	10	14	3	8	15	18	.....	22.6
Massachusetts.																																	
Amherst	Maximum	49	48	44	44	55	12	43	45	52	56	56	49	49	56	62	46	54	61	40	43	43	44	43	34	30	28	28	26	40	31	.....	45.5
	Minimum	26	27	26	30	25	24	30	23	30	30	24	24	13	22	24	29	22	28	25	28	36	32	33	34	30	14	18	13	10	12	.....	23.7
Blue Hill	Maximum	45	46	43	43	49	60	49	47	51	51	49	47	42	48	58	44	50	63	53	43	44	44	39	29	25	23	29	34	37	.....	44.2	
	Minimum	31	33	30	31	27	37	29	26	38	38	38	32	26	32	36	33	28	36	27	25	37	37	36	29	19	14	9	16	18	.....	28.8	
Boston	Maximum	48	50	48	47	53	65	42	50	56	54	52	50	47	47	63	45	54	65	46	48	45	46	46	43	33	29	29	31				



Scale of Shales.





## Daily Precipitation for November, 1917—Continued from page 85.

Stations.	Watersheds.	Day of month.																															Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
<i>Rhode Island.</i>																																		
Block Island ***	Coast																					T.	.05	T.					.14				0.19	
Bristol	do																					T.	.03	.14					.25				0.39	
Greene	do																						.03	.20					.05				0.28	
Hope Valley	do																					.05	.16							.20			0.41	
Kingston	do																					.03	.11	T.					.20				0.34	
Narrag sett Pier***	do																					.03	*	.17	T.				.11				0.31	
Pawtucket	do																					.04	.12	.02					.13				0.31	
Providence***	do																					T.	.04	.12					.20				1.03	
Wallum Lake	do																					.10	.63	.10										
<i>Connecticut.</i>																							.01	.93	.13	T.			.08				1.15	
Bridgeport	Coast																						.95	.22					.07		T.		1.24	
Canton	Connecticut																					T.	.08	*	.56				.10				0.74	
Colchester	Coast																	T.				.20	.45					.20					0.85	
Cream Hill	Housatonic																						.40	.05					.40				0.85	
Danielson	Coast																						.92	.04					.07				1.03	
East Hartland	Housatonic																					.06	.37	T.				.12		.40			0.95	
Falls Village	Connecticut																	T.				T.	.13	.85	.32	T.		.04		.03			1.37	
Hartford **	Coast																						.59						.06		.12			0.71
Lake Konomocott	do																					T.	.01	.74	.07				.06		.20			1.08
New Haven ***	do																						.04	.26					.15	.20			1.65	
New London	do																					T.	.42	.12					.18				0.73	
N. Grosvenor Dale	do																					.06	.74						.08		.54		1.45	
Norwalk	do																					.05	.65	.20	.05					.05			1.00	
Southington	do																						.47										0.47	
Storrs	Coast																						.09	.19	.57					.01	.04		0.90	
Torrington	Housatonic																					.10	*		.23				.10				0.43	
Voluntown	Coast																					.10	.30	.47	T.								0.43	
Waterbury	Housatonic	T.			T.	T.		T.																					T.	.04	.06		0.97	

## Special River Rainfall Stations

<i>Maine.</i>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				</
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## Daily Evaporation (inches) and Wind Movement (miles).

Gardiner, Me.	Evaporation	.07	.00	.09	.07	.08	.07	.08	.07	.07	.04	.05	.04	.05	.02	.02	.03	.04	.01	.05													
Dorchester Center, Mass.	Wind movement	24	21	67	178	105	44	173	98	46	117																						
	Evaporation																																
	Wind movement																																

|| Observations taken at 6 p. m.

||| Observations taken at 7 a. m.

See temperature and precipitation data in Climatological Tables.

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

T. Precipitation is less than 0.01 inch rain or melted snow. Precipitation indicated in that of following day.  
 † Post-office addresses of these stations are as follows: Lington, Redington, Me.; Bakers Bridge, South Lincoln, Mass.; Lake Cocuttuate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomocott, New London Water Works, New London, Conn.; Moss Brook, Wendell Depot, Mass.; Priest Brook, Winchendon, Mass.; Sewall's Falls, Concord, N. H.

## Comparative Data for New England for November.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.								
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888....	39.5	80	-9	6.32	14	5.0		9	7	11		sw.	12.4	84	ne.	1903....	35.2	78	-9	2.01	2.00	7	3.9	15	6	9	58	nw.	9.1	52	ne.
1889....	41.1	68	-3	6.12	11	3.4		8	15			w.	10.3	63	se.	1904....	32.5	67	-10	1.63	2.10	5	5.9	13	7	10	52	nw.	9.6	74	ne.
1890....	37.4	71	2	1.49	8	T.	10	11	9			nw.	15.0	54	se.	1905....	36.2	69	-6	2.60	2.15	8	2.5	13	7	10	54	w.	10.5	63	s.
1891....	37.7	68	-14	2.69	10	1.8	11	8	11			nw.	11.6	63	ne.	1906....	37.3	70	0	5.58	2.20	9	8.4	10	7	13	41	nw.	10.9	61	ne.
1892....	37.7	76	6	5.19	11	6.5	8	6	17			nw.	11.6	70	ne.	1907....	38.0	69	0	5.06	3.00	10	2.4	10	7	13	37	nw.	10.6	70	ne.
1893....	37.8	72	-1	2.17	7	2.6	10	10				sw.	11.4	72	se.	1908....	38.1	69	-4	1.17	1.20	8	3.2	12	7	11	49	nw.	11.2	60	w.
1894....	38.2	72	-1	2.17	7	2.6	10	10				sw.	11.4	72	se.	1909....	38.1	69	-4	1.17	1.20	8	3.2	12	7	11	49	nw.	11.2	60	w.
1895....	40.8	78	-11	5.98	15	3.0	8	7	16	41	sw.	11.3	73	s.	1910....	38.7	67	-4	3.40	5.04	9	6.6	7	9	13	46	nw.	12.1	58	nw.	
1896....	42.0	74	-11	3.19	12	7.5	7	8	15	32	sw.	12.0	52	sw.	1911....	37.0	71	0	4.21	2.70	11	3.0	10	9	11	46	w.	13.3	62	nw.	
1897....	38.9	68	-13	6.48	5.89	11	7.5	7	8	15	36	nw.	13.1	63	sw.	1912....	39.6	76	-5	3.59	2.97	8	3.0	13	6	11	46	nw.	12.2	62	ne.
1898....	37.7	67	-13	5.68	3.69	11	17.5	10	6	14	36	nw.	12.2	97	nw.	1913....	41.4	75	-6	2.37	3.64	7	2.6	12	7	12	49	nw.	11.6	58	s.
1899....	37.1	71	-15	2.16	2.21	16	6.0	9	8	13	41	nw.	11.7	71	nw.	1914....	36.7	76	-10	2.62	3.00	8	6.5	11	9	10	49	nw.	12.3	58	se.
1900....	40.1	74	-1	5.49	3.86	12	3.9	9	8	13	41	nw.	11.7	81	w.	1915....	39.6	73	-1	2.52	2.40	9	1.3	13	7	10	47	nw.	12.2	70	se.
1901....	32.7	72	-9	2.20	2.20	18	6.7	9	8	13	41	nw.	11.3	81	w.	1916....	36.7	71	-7	2.96	3.28	9	5.1	13	6	11	52	nw.	11.5	62	s.
1902....	41.9	71	-1	1.27	1.25	2.0	2.0	10	8	12	39	nw.	9.5	60	e.	1916....	33.5	70	-20	0.96	1.20	5	4.3	16	6	8	57	nw.	11.2	57	nw.



U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

NEW ENGLAND SECTION

DECEMBER, 1917

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BY  
JOHN W. SMITH  
METEOROLOGIST

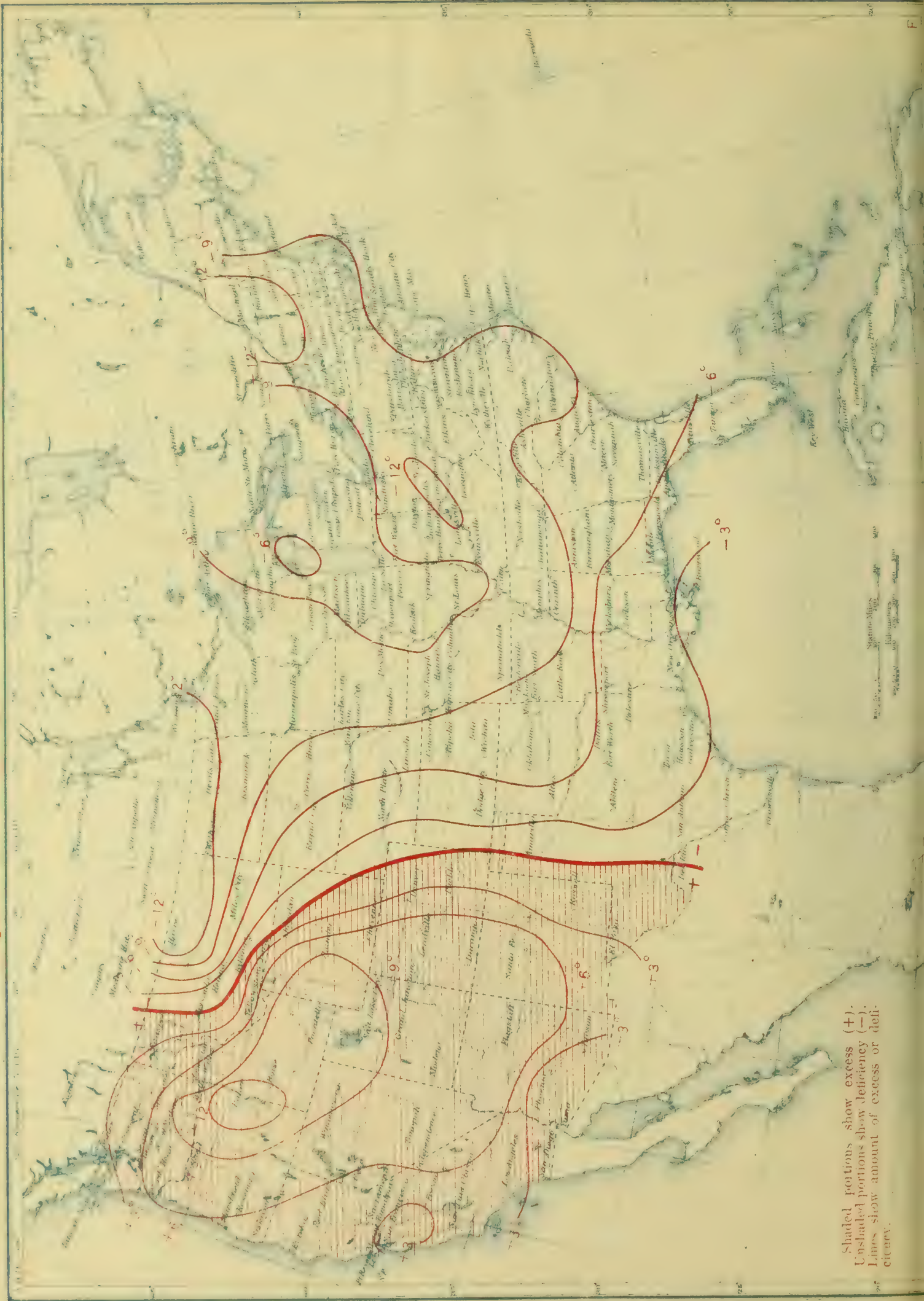
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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
JANUARY 21, 1918



Departure of the Mean Temperature from the Normal, December, 1917.





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

Vol. XXIX. BOSTON, MASS., DECEMBER, 1917. No. 12.

## GENERAL SUMMARY.

The weather was unusually cold, the average temperature for the month,  $16.7^{\circ}$ , being the lowest for any December during the period covered by the section records beginning in 1888, and  $1.6^{\circ}$  below that of the previous coldest December, which was in 1904. Minimum temperatures below zero were common in the northern portion of the section from the 8th to the 18th, and again during the last decade. One of the most severe cold waves of record prevailed during the last three days of the month, with minimum temperatures in the northern States from  $-20^{\circ}$  to  $-40^{\circ}$ , and in the southern States from  $-10^{\circ}$  to  $-20^{\circ}$ . At many stations all previous records of low temperature were broken. The snowfall was greater than usual. The heaviest storms were on the 1st and 14th, when from 6 to 15 inches fell over the greater portion of the section. In southern coast sections there was little snow on the ground during the first part of the month and only moderate amounts at anytime. In the interior and northern portions, however, the ground was well covered with depths from 6 to 20 inches through the month.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 13 stations reporting, was 30.19 inches, which was .15 inch above the normal for the month, and .29 inch above the mean for December, 1916. The highest monthly mean was 30.25 inches, at Northfield, Vt.; the lowest, 30.14 inches, at Eastport, Me. and Nantucket, Mass. The highest recorded was 30.97 inches, at Eastport and Portland, Me. on the 17th; the lowest, 29.09 inches, at Blue Hill Observatory, Hyde Park, Mass. on the 14th. The monthly range for the section was 1.88 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 79 stations, was  $16.7^{\circ}$ , which was  $9.2^{\circ}$  below the mean for December, 1916, and the lowest for any December since the beginning of the section averages in 1888. The previous lowest December mean temperature was  $18.3^{\circ}$ , in 1904. The highest average December temperature during this period was  $35.9^{\circ}$ , in 1891. The average temperature for the several States of the section was as follows: Maine,  $12.2^{\circ}$ ; New Hampshire,  $12.6^{\circ}$ ; Vermont,  $10.4^{\circ}$ ; Massachusetts,  $21.9^{\circ}$ ; Rhode Island,  $24.5^{\circ}$ ; Connecticut,  $21.1^{\circ}$ . The average temperature for the section was  $8.7^{\circ}$  below the normal for the month. The departures from the normal for the several States were as follows: Maine,  $-4.6^{\circ}$ ; New Hampshire,  $-10.7^{\circ}$ ; Vermont,  $-11.8^{\circ}$ ; Massachusetts,  $-8.5^{\circ}$ ; Rhode Island,  $-8.9^{\circ}$ ; Connecticut,  $-9.3^{\circ}$ . The highest monthly mean was  $29.6^{\circ}$ , at Nantucket, Mass.; the lowest,  $5.6^{\circ}$ , at Presque Isle, Me. The highest recorded was  $54^{\circ}$ , on the 8th, at Nantucket, Mass.; the lowest,  $-44^{\circ}$ , at Berlin, N. H. on the 30th-31st. The greatest monthly range was  $86^{\circ}$ , at Berlin, N. H.; the least,  $41^{\circ}$ , at Provincetown, Mass. The greatest daily range was  $63^{\circ}$ , at Patten, Me. on the 31st.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 13 stations reporting, was 75 per cent, which was 1 per cent above the mean for December, 1916, and 1 per cent below the normal for the month. The highest monthly average was 86 per cent, at Eastport, Me. and Northfield, Vt.; the lowest, 66 per cent, at Blue Hill Observatory, Hyde Park, Mass.

## PRECIPITATION.

The average for the section, as determined from the records of 80 stations, was 2.66 inch, which was 0.71 inch below the average for December, 1916, and the least for the month since 1910. During the past 29 years the average December precipitation has been greater in 22 years and less in 7 years than that of the present month. The greatest average December precipitation during this time was 7.59 inches, in 1901; the least, 1.32 inches, in 1892. The average precipitation for the several States of the section was as follows: Maine, 3.04 inches; New Hampshire, 2.69; Vermont, 1.98; Massachusetts, 2.69; Rhode Island, 2.16; Connecticut, 2.90. The average for the section was 0.64 inch below the normal for the month. The departures from the normal for the several States were as follows: Maine,  $-0.11$  inches; New Hampshire,  $-0.25$ ; Vermont,  $-0.48$ ; Massachusetts,  $-0.81$ ; Rhode Island,  $-1.67$ ; Connecticut,  $-1.16$ . The greatest monthly amount was 4.57 inches, at Cavendish, Vt.; the least, 0.76 inch, at Van Buren, Me. The greatest amount in 24 hours was 2.21 inches, at Cavendish, Vt. on the 14th. The average snowfall for the section was 17.9 inches, which was 2.6 inches above the average for December, 1916, and 7.0 inches above the normal for the month, as determined from the records of the past 30 years. The greatest average snowfall in any December during this time was 24.2 inches, in 1902; the least, 2.3 inches, in 1891. The average snowfall for the several States was as follows: Maine, 23.5 inches; New Hampshire, 22.0; Vermont, 24.0; Massachusetts, 12.0; Rhode Island, 3.1; Connecticut, 13.9. The average number of days with .01 inch or more of precipitation was 6, which was 5 less than the average for December, 1916, and 4 less than the normal for the month.

## WIND.

The prevailing direction of the wind was from the northwest, which is the normal direction for the month, as determined from the records of the past 30 years. The greatest monthly wind movement at any station was 17,668 miles, at Block Island, R. I.; the least, 4,897 miles, at Amherst, Mass. The average hourly wind movement was 11.4 miles, which was 1.4 miles below the average for December, 1916, and normal for the month. The highest recorded velocity was 76 miles per hour from the east, at Block Island, R. I. on the 14th, and from the southwest at Nantucket, Mass. on the same date. This is about the usual maximum velocity for December.

## SUNSHINE AND CLOUDINESS.

The average number of clear days was 14; partly cloudy, 6; cloudy, 11, which compares with the normal for the month of 11 clear, 8 partly cloudy, and 12 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 46, which was 3 per cent below the average for December, 1916, and 3 per cent above the normal for the month, as determined from the records of the past 25 years. The greatest percentage of possible sunshine at any station was 58, at New Haven, Conn.; the least, 26, at Northfield, Vt. The greatest percentage of possible sunshine in any December during the past 25 years was 55, in 1894 and 1896; the least, 31, in 1906.

## DATES OF MISCELLANEOUS PHENOMENA.

*Thunderstorms*.—Newton, N. H., 13; Lawrence, Provincetown, Mass., 14.

*Auroras*.—Eastport, Me., 16; North Bridgton, Me., 24; Berlin, Hanover, N. H., 7; Bethlehem, N. H., 18; Burlington, Vt., 17; Blue Hill, Hyde Park, Mass., 2.

*Lunar Halos*.—Eastport, Me., Bethlehem, N. H., 25; Concord, N. H., 25, 31; Blue Hill, Hyde Park, Mass., 26; Boston, Mass., 25, 26; Nantucket, Mass., 22, 24; Somerset, Mass., 24; Hartford, Conn., 25, 26, 28; New Haven, Conn., 26; Norwalk, Conn., 25, 26, 27.

*Solar Halos*.—Cornish, Me., 25; Eastport, Me., 8, 11; Berlin, N. H., 8; Bethlehem, Concord, Franklin, N. H., 12; Brookline, N. H., 5; Northfield, Vt., 6; Woodstock, Vt., 4, 12; Blue Hill, Hyde Park, Mass., 6, 8, 12, 16, 22, 27, 31; Boston, Mass., 8, 12, 16; Nantucket, Mass., 12, 24, 26; Hartford, Conn., 6, 8, 12, 16, 27, 29; New Haven, Conn., 5, 6, 12, 16, 26.



## Climatological Data for December, 1917.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				No. of days.				Prevailing direction of wind.	Observer.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.			Cloudy.
Maine.																				
Bar Harbor	Hancock	20	31	19.9	-6.7	45	9	-21	30	46	3.11	-1.53	1.00	7.0	7	20	1	10	nw.	Mount Desert Nurseries.
Cornish	York	778	62	16.5	-8.7	47	3	-36	30	46	2.75	-0.37	1.28	20.5	5	14	6	11	sw.	T. H. West.
Eastport	Washington	53	45	17.8	-7.5	47	9	-22	30	34	2.99	-0.98	0.88	17.3	9	8	5	18	nw.	U. S. Weather Bureau.
Farmington	Franklin	450	20	10.6	-4.5	37	3	-36	30	45	3.86	+0.54	1.30	26.0	5	14	8	9	nw.	State Normal School.
Gardiner	Kennebec	163	25	14.8	-2.8	39	3	-27	30	39	2.64	-1.03	0.72	22.0	5	17	1	13	n.	Samuel D. Soule.
Greenville	Piscataquis	1,140	13	7.8		33	25	-30	30	36	3.62	+0.83	1.10	36.2	7	19	3	9	.....	U. S. Weather Bureau.
Houlton	Aroostook	362	15	7.0		38	3	-30	30	45	2.80	+0.43	1.50	28.0	4	17	7	7	w.	Bangor & Aroostook RR.
Langtown	Franklin	1,500	1																.....	Langtown Co.
Lewiston	Androscoggin	185	34	13.6	-4.6	36	5†	-27	30	39	4.21	+0.27	1.47	25.5	6	14	9	8	n.	Union Water Power Co.
Madison	Somerset	257	14	8.4 <sup>a</sup>		35 <sup>a</sup>	25†	-34 <sup>a</sup>	31	39	3.08	-0.11	2.04	27.5	7	16	4	11	nw.	William Jardine.
Millinocket	Penobscot	386	14	10.1		35	3†	-35	31	44	3.74	+0.61	1.59	34.8	8	19	1	11	w.	Great Northern Paper Co.
North Bridgton	Cumberland	450	24	14.2	-4.2	40	3	-28	30	38	2.91	+0.44	1.13	29.0	5	17	4	10	n.	C. L. Chadbourne.
Orono	Penobscot	129	48	15.8	-0.4	41	9	-29	30	51	3.24	-0.28	1.00	28.0	6	17	5	9	nw.	Maine State College.
Patten	do	550	15	6.1 <sup>a</sup>		40 <sup>a</sup>	3†	-30 <sup>a</sup>	29	63 <sup>a</sup>	3.50	+1.22	1.00	35.0	5	11 <sup>a</sup>	2 <sup>a</sup>	13 <sup>a</sup>	ne.	Bangor & Aroostook RR.
Portland	Cumberland	99	46	17.8	-4.2	43	9	-21	30	34	4.22	+0.54	1.74	13.7	7	16	3	12	n.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	8	5.6		34	21†	-35	30	46	1.70	-0.65	0.60	17.0	3	14	4	13	n.	E. M. Libby.
Rumford	Oxford	505	24	12.5	-4.0	36	1†	-20	29†	36	3.26	+0.42	1.89	32.8	5	17	6	8	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	13	5.7		34	2†	-37	27	46	0.76	-1.92	0.45	6.8	5	13	4	14	nw.	Rev. J. M. Thomas.
Winslow	Kennebec	90	22	15.2	-2.6	39	3	-25	30	42	2.37	-0.48	1.31	16.2	5	17	4	10	n.	Hollingsworth & Whitney
New Hampshire.																				
Alstead Center	Cheshire	1,120	13	12.2	-11.1	38	25	-26	30	26	2.42	-0.65	1.24	37.0	6	18	4	9	nw.	Frank Dewing.
Berlin	Coos	1,090	20	6.2		42	24	-44	30†	52	4.18	+1.01	1.95	31.3	8	12	13	6	n.	Berlin Mills Co.
Bethlehem	Grafton	1,470	25	7.8	-12.8	39	21†	-33	30	38	2.15	-0.18	0.95	21.5	5	14	7	10	w.	Benjamin Tucker.
Concord	Merrimack	350	57	15.7	-10.7	41	25	-17	30	37	2.32	-1.03	1.11	22.2	6	16	7	8	nw.	U. S. Weather Bureau.
Durham	Stafford	88	22	17.3	-11.0	40	5	-26	30	30	2.37	-1.13	1.02	12.0	4	17	2	12	nw.	N. H. Agr. College.
Franklin	Merrimack	440	18	14.9	-8.7	41	25	-28	31	37	3.86	+0.38	1.55	19.5	5	15	5	11	nw.	Dr. C. P. Webster.
Glencliff	Grafton	1,650	4	9.7		40	24	-28	31	45	2.15	.....	0.82	25.3	5	21	2	8	nw.	State Sanatorium.
Grafton	do	863	31																n.	P. R. Kimball.
Hanover	do	603	83	9.9	-11.5	44	25	-37	31	35	2.12	+0.52	0.90	21.9	5	8	9	14	n.	Dartmouth College.
Keene	Cheshire	506	32	14.2	-11.4	39	25	-27	31	34	3.40	+0.40	1.82	20.8	7	15	7	8	nw.	Samuel Wadsworth.
Nashua	Hillsboro	125	32																n.	C. B. Stevens.
Newton	Rockingham	126	29	17.8	-9.9	42	25	-22	30	31	2.69	-0.57	1.65	8.5	4	13	8	10	nw.	W. C. Gale.
Plymouth	Grafton	500	29	13.4	-8.8	40	25	-20	30	40	1.94	-1.21	1.22	21.5	4	13	6	12	w.	Mrs. Hattie G. Trow.
Vermont.																				
Bloomfield	Essex		10	8.4		44	21	-43	30	46	1.83	-0.29	1.06	32.8	9	16	12	3	w.	Lyman Falls Power Co.
Burlington	Chittenden	404	10	12.1	-10.4	41	25	-25	30	42	1.10	-0.59	0.48	12.4	6	8	10	13	s.	U. S. Weather Bureau.
Cavendish	Windsor	910	14	8.4		38	22	-42	31	59	4.57	+2.17	2.21	38.0	6				n.	Colonial Power Co.
Chelsea	Orange	840	22	6.3	-14.9	41	25	-40	30	38	2.35	-0.21	1.00	31.0	5	14	2	15	n.	W. F. Dewey.
Cornwall	Addison	517	24	14.0	-11.4	41	21	-23	30	25	1.42	-0.66	0.60	17.5	5	13	7	11	n.	C. H. Lane.
Enosburg Falls	Franklin	601	26	9.6	-12.7	43	21	-32	30†	40	1.51	-1.39	0.52	27.0	9	17 <sup>a</sup>	5 <sup>a</sup>	8 <sup>a</sup>	w.	J. W. Pomeroy.
Hyde Park	Lamoille	576	5																s.	A. V. Wiswell.
Northfield	Washington	876	31	7.2	-13.3	44	25	-41	30†	45	1.84	-0.87	0.93	25.4	7	4	7	20	s.	U. S. Weather Bureau.
Rutland	Rutland	562	1	9.9		40	22	-27	30	38	1.32	.....	0.56	14.1	4	17	3	11	nw.	George H. Ross.
Somerset	Windham	2,096	6																n.	Power Construction Co.
St. Johnsbury	Caledonia	711	24	8.8	-11.9	40	21	-43	30	40	1.77	-0.60	0.74	21.4	8	15	5	11	n.	Fairbanks Museum.
Vernon	Windham	310	2	14.6	-11.1	38	22†	-25	30	31	1.71	-1.53	0.66	20.0	5	16	6	9	nw.	Conn. River Power Co.
Wells	Rutland	750	26	12.0	-11.8	36	21†	-26	30	27	1.98	-0.67	0.93	16.0	3	12	8	11	n.	E. R. Pember.
Woodstock	Windsor	700	25	13.0	-8.5	43	25	-35	30†	46	2.26	-0.68	0.89	31.0	5	11	1	19	n.	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	28	17.1	-10.2	40	5†	-22	39	29	2.56	-0.98	1.13	14.2	5	18	3	10	n.	Mass. Agr. College.
Blue Hill	Norfolk	640	33	20.6	-9.2	46	9	-17	30	32	3.36	-0.40	1.46	13.0	14	13	4	15	nw.	Blue Hill Observatory.
Boston	Suffolk	124	47	23.7	-7.9	48	9	-14	30	35	2.56	-0.85	1.19	7.0	12	6	8	17	nw.	U. S. Weather Bureau.
Chestnut Hill	do	124	37	24.2	-6.2	45	9	-14	30	38	2.35	-0.56	0.94	6.0	7	19	0	12	.....	Met. Water Board.
Clinton	Worcester	370	21	22.9		44	5	-16	30	38	2.70	-0.51	1.38	14.0	6				ne.	Do.
Concord	Middlesex	139	27	19.6	-8.2	41	5	-16	30	36	2.95	-0.40	1.32	11.4	8	9	6	16	n.	Fred A. Tower.
Fall River	Bristol	200	51	24.4	-9.8	50	9	-11	30	38	3.10	-1.26	1.27	7.0	12	5	21	5	nw.	C. V. S. Remington.
Fitchburg	Worcester	550	34	18.9	-9.6	40	5†	-16	30	30	2.86	-0.69	1.25	22.5	7	15	5	11	nw.	Dr. A. P. Mason.
Framingham	Middlesex	160	37	22.1	-8.3	42	9	-14	30	36	2.79	-1.18	1.03	9.0	7				nw.	Met. Water Board.
Lawrence	Essex	51	33	19.6	-9.0	41	25	-17	30	28	3.22	-0.15	1.40	12.0	7	10	15	6	nw.	Essex Company.
Lowell	Middlesex	100	32	20.6	-8.2	41	24†	-20	30	42	3.66	-0.08	1.46		5				nw.	Props. Locks & Canals.
Nantucket	Nantucket	47	31	29.6	-7.1	54	8	-8	30	33	2.13	-1.51	0.63	6.8	14	4	7	20	nw.	U. S. Weather Bureau.
New Bedford	Bristol	88	105																n.	City Engineer.
Plymouth	Plymouth	50	32																n.	Miss L. B. Knapp.
Provincetown	Barnstable	40	30	26.8	-8.3	47	9	-6	30	25	2.19	-1.47	0.60	6.5	12	11	5	15	n.	Gideon Bowley.
Rockport	Essex	25	15	25.5		46	9	-5	30	37	3.66	.....	1.51	4.8	12	12	5	14	nw.	U. S. C. G. Station.
Rutland	Worcester	1,160	15																n.	State Sanatorium.
Springfield	Hampden	199	7	21.0	-7.6	45	5	-18	30	35	1.49	-2.03	0.82	12.2	4	13	7	11	nw.	U. S. Army.
Turners Falls	Franklin	200	31	16.4	-9.1	48	20	-24	30	25	3.19	+0.28	1.84	24.5	6	16	5	10	.....	Turners Falls Co.
Westboro	Worcester	298	43	25.2	-5.0	45	24	-10	16†	30	3.15	-0.45	1.57	9.0	4				w.	Miss E. W. Newcomb.
Williamstown	Berkshire	711	36	16.4	-11.5	41	21	-20	30	35	1.85	-1.15	0.95	20.2	9	12	11	8	nw.	Williams College.
Worcester	Worcester	518	25																	



## Daily Precipitation for December, 1917.

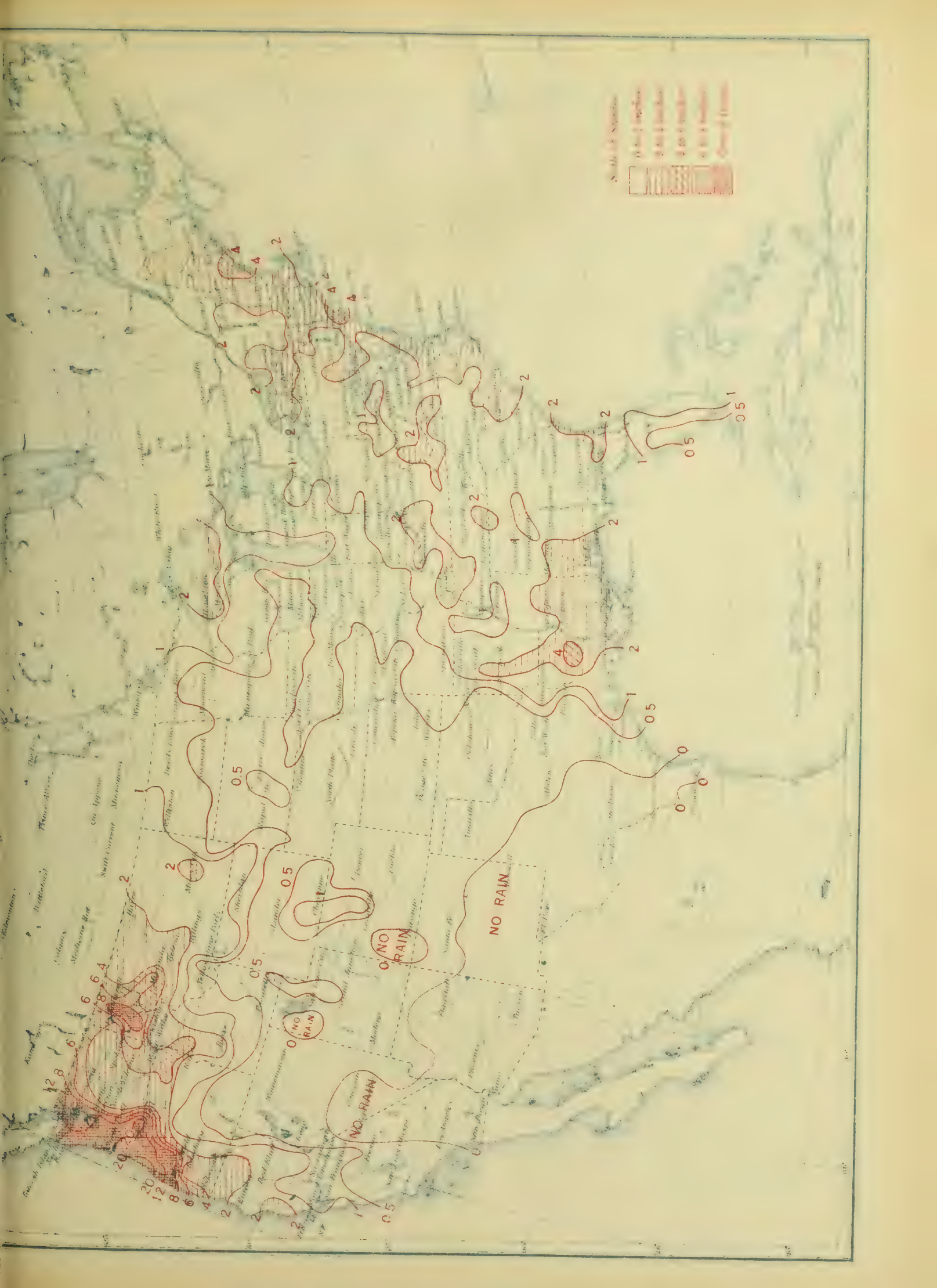
Stations.	Watersheds.	Day of month.																															Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Maine.																																		
Ashland	St. John																																	
Bar Harbor	Coast	.20	.80							1.00					.50	.02																	3.11	
Cornish	Saco	1.28							.05						.60																		2.75	
Eastport***	Coast	.28	.81	.02	T.					.65	.01				.49	.03										.02							2.99	
Eustis	Kennebec	.85	.35	T.		T.	.02			.50	.05	T.			.82											.03							2.81	
Farmington	do	1.30	1.03							.51					.78												.01						3.86	
Gardiner	do	.54	.72	T.						.42					.58																		2.64	
Greenville***	do	1.10	.40			T.	.10	T.		.50					.90						.02												3.02	
Houlton	St. John		1.50							.50					.40																		2.80	
Howe Brook	Penobscot																																	
Langtown #	Kennebec																																	
Lewiston	Androscoggin	1.47	.54							.90					1.01	.06																	4.21	
Madison	Kennebec	* 2.03								.34					.14	.34																	3.03	
Millinocket	Penobscot	1.59	.03						.82						.31	.41																	3.74	
North Bridgton	Saco	1.13	.32							.50					.70																		2.91	
Orono	Penobscot		1.00							.50					.50																		3.24	
Patten	do	.40	.80	.70					1.00						.60																		3.50	
Portland***	Coast	1.46	.24						.48	.12					1.74																		4.22	
Presque Isle	St. John	T.	T.	T.	T.	T.				.60					.60																		1.70	
Rumford	Androscoggin	1.89	T.			T.			.38	.18					.66																		3.26	
Van Buren	St. John	.05								.03					.13																		0.76	
Winslow	Kennebec	* 1.31								.42					.43																		2.37	
New Hampshire.																																		
Alstead Center	Connecticut	1.24	.05						.02	.48	T.				.62																		2.42	
Berlin	Androscoggin	.75	.04		T.	T.			1.80	.15	T.				.90	.20																	4.18	
Bethlehem	Connecticut	.40	.55						.20						.90																		2.15	
Brookline	Merrimack	1.45							2.50						1.20	.09																	5.17	
Concord***	do	.11							.40	.07					.09	.64																	2.32	
Durham	do	1.02							.80							.54																		2.37
Franklin	do	1.55	.24						.77						T.	1.47																	3.86	
Glencliff	do	.41	.82						.21	T.					.19																		2.15	
Grafton	do																																	
Hanover	Connecticut	.90	T.						.10	.29	T.				.79																		2.12	
Keene	do	1.82							.14	.60					.02	.75																	3.40	
Nashua	Merrimack	1.65							.66						.35																		2.69	
Newton	do	1.22	T.						.22						.35	T.																	1.94	
Plymouth	do																																	
Vermont.																																		
Bloomfield	Connecticut	.07	.12	.01			.03			.16		.02			1.06																		1.83	
Burlington***	Champlain	.34	.01						.25	.33					.40	.21																	1.10	
Cavendish	Connecticut	1.00							.45	.33					.40	.21																	4.57	
Chelsea	do	1.00							.25	.20					.75																		2.35	
Cornwall	Champlain	.05	.40						.35						.60	T.																	1.42	
Enosburg Falls	do	.52	.20				.01		.16						.28	.10																	1.51	
Hyde Park	do														.83																		2.13	
Northfield***	Champlain	.40	.02						.32	.11	T.				.36	.57	T.																1.84	
Rutland	do	.32	.27	T.					.22						.56	T.																	1.32	
Somerset	Connecticut																																	
St. Johnsbury	do	.74	.16	T.			.01	T.		.44					.30	T.																	1.77	
Vernon	do	.69	.56						.33						.09	T.																	1.71	
Wells	Champlain	.93							.18						.87																		1.98	
Woodstock	Connecticut	.89	.05						.50						.71																		2.26	
Massachusetts.																																		
Amherst	Connecticut	1.10							.28		T.				.38	.75																	2.56	
Ashland	Merrimack	* .89							.65						* 1.03																		2.66	
Bakers Bridge #	do	.43	.71		.03				.63																								2.40	
Bedford	do	1.24							.54						.64																		2.46	
Blue Hill	Coast	1.46	.06			.04			.22	.52	.01				.02	.69																	3.86	
Boston***	do	1.19	.03		.01	.01			.55	.04					.04	.60																	2.56	
Brocton	Coast																																	
Chestnut Hill	do	.94	T.		.06				.53						.69																			
Clinton	Merrimack	.61				.02			.65						.03	1.38																	2.85	
Concord	do	1.32	.01		.05				.08	.56					.02	.88																	2.70	
Fall River	Coast	.72	.01						1.27	.63				.01	.20	.63																	2.93	
Fitchburg	Merrimack	.83	T.						.23	.48					.02	1.25																	3.10	
Framingham	do	* 1.02		.02					.68						.01	1.03																	2.86	
Haverhill	do	1.75	.03						.45						.03	.68																	2.79	
Hingham	Coast	* 1.04		.05					.77		T.	T.			.42																		2.96	
Hyannis	do	.40	.05						.																									



## Daily Temperatures for December, 1917.

Stations.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean
Maine.																																	
Bar Harbor	Maximum	40	36	35	32	33	33	29	19	45	30	16	10	20	43	32	17	22	23	29	36	35	36	30	36	41	85	8	34	34	-8	2	27.8
	Minimum	31	30	29	22	16	20	17	6	16	16	5	-4	-2	8	17	-1	7	16	22	28	33	30	5	12	34	7	-5	1	-12	-21	-15	12.0
Cornish	Maximum	37	41	47	39	41	41	35	27	36	25	23	17	73	37	30	20	23	25	29	39	37	42	32	35	43	28	16	32	7	6	15	29.9
	Minimum	31	29	21	10	10	15	14	-3	14	5	-7	-17	-8	9	2	-20	-2	-8	20	25	31	14	-14	2	22	-1	-20	0	-11	-36	-30	3.1
Eastport	Maximum	39	35	33	29	28	34	23	31	47	19	9	6	24	42	29	11	23	22	32	34	34	35	17	39	38	19	4	34	0	-8	0	24.7
	Minimum	33	30	29	21	20	23	9	5	19	8	0	-4	4	24	2	1	6	17	26	30	32	17	9	12	19	1	-5	0	-12	-22	-14	11.0
Farmington	Maximum	36	35	37	31	29	26	19	17	30	27	12	6	6	29	20	10	10	19	23	34	35	34	25	25	33	25	10	19	9	-11	10	21.6
	Minimum	27	28	30	25	29	20	12	10	30	13	4	5	14	27	13	9	3	21	28	32	31	14	18	33	13	0	21	-8	-16	-5	16.3	
Greenville	Maximum	31	30	26	25	29	20	12	10	30	13	4	5	14	27	13	9	3	21	28	32	31	14	18	33	13	0	21	-8	-16	-5	16.3	
	Minimum	22	26	18	11	12	9	4	-3	8	2	-6	-13	-22	-2	-4	-8	-16	-12	12	21	27	5	-3	15	0	-27	-14	-14	-36	-35	-0.7	
Millinocket	Maximum	34	33	35	30	29	27	15	17	31	17	8	7	14	28	25	11	17	20	23	32	38	35	16	21	35	32	5	20	7	-10	0	20.9
	Minimum	20	28	26	14	5	10	-2	2	6	0	-2	-15	-30	-8	1	-7	-20	-11	9	19	27	15	0	-1	20	-4	-24	-18	-20	-27	-35	-0.7
Orono	Maximum	36	33	33	33	28	31	1	3	8	8	-3	-13	-15	2	12	-10	-4	-1	16	25	32	29	6	1	24	0	-18	-14	-16	-29	-24	4.5
	Minimum	40	35	38	34	35	41	24	34	43	18	16	11	14	41	23	16	16	23	28	36	36	26	37	41	21	7	31	-3	0	7	25.6	
Portland	Maximum	32	28	26	21	21	20	13	6	13	6	3	-1	3	13	5	1	5	8	22	27	33	14	10	19	21	2	-5	-3	-12	-21	-15	10.0
	Minimum	33	32	30	25	26	26	17	10	31	15	6	5	0	33	25	10	0	2	20	30	34	15	14	22	14	3	20	-15	+15	+6	15.8	
Presque Isle	Maximum	33	32	30	25	26	26	17	10	31	15	6	5	0	33	25	10	0	2	20	30	34	15	14	22	14	3	20	-15	+15	+6	15.8	
	Minimum	18	20	22	16	13	15	5	-12	15	-2	-8	-19	-29	-13	7	-11	-25	-27	-15	20	28	10	-12	11	13	-16	-31	-21	-45	-33	-4.5	
Rumford	Maximum	36	34	32	30	31	28	22	18	30	16	8	10	12	28	15	14	16	22	27	34	36	34	22	27	32	14	6	26	-10	-6	4	20.9
	Minimum	32	25	18	18	18	9	0	8	10	0	0	-10	-9	8	2	-2	-10	-11	18	24	30	8	2	4	16	-2	-14	-10	-20	-20	-14	4.1
Van Buren	Maximum	32	34	36	28	29	25	18	14	30	5	-16	-21	-5	5	3	14	-1	8	21	30	34	34	14	10	24	12	2	19	-3	-11	-24	16.5
	Minimum	11	27	25	23	16	12	7	-5	-7	3	-9	-32	-14	14	-11	-22	-32	-15	19	28	14	-3	-22	10	-13	-37	-27	-27	-34	-35	-5.1	
New Hampshire.																																	
Alstead Center	Maximum	33	32	24	25	22	28	17	16	28	10	8	8	16	25	20	8	10	22	29	30	33	33	16	33	38	21	6	8	8	-15	-8	19.2
	Minimum	29	19	16	15	19	17	2	-2	10	4	3	-5	-9	1	13	7	-10	0	5	18	26	27	12	-2	14	21	3	-11	-10	-18	-26	-31
Bethlehem	Maximum	33	33	18	24	28	10	14	24	8	2	3	10	21	12	12	72	17	19	31	32	39	31	14	32	39	15	0	27	-11	-16	-8	17.5
	Minimum	30	17	8	5	14	4	-4	-8	7	2	-11	-14	-9	2	-8	-18	-6	-6	4	25	24	0	-11	0	15	-8	-19	-11	-25	-33	-28	2.0
Concord	Maximum	38	34	35	37	39	33	23	27	30	14	14	15	16	32	20	14	21	26	30	31	35	38	30	39	41	19	10	31	-5	-2	5	24.9
	Minimum	33	22	19	12	12	17	10	5	11	4	-12	-17	-2	16	4	-5	4	3	22	27	32	11	5	10	19	1	-13	-6	-14	-17	-15	6.5
Franklin	Maximum	37	39	37	37	39	40	25	21	29	12	13	16	17	29	26	18	21	25	33	33	35	37	31	28	41	30	12	32	15	-3	5	26.3
	Minimum	30	23	19	4	9	18	5	0	15	-2	-14	-20	-5	14	10	-14	5	-4	4	21	15	30	1	0	25	-7	-17	-5	-13	-29	-28	3.5
Hanover	Maximum	35	35	27	28	32	30	16	18	30	12	11	4	17	27	22	3	15	13	31	32	35	36	16	34	44	22	4	21	-2	-11	-3	20.5
	Minimum	31	20	14	3	12	10	-4	-8	10	4	-16	-21	-11	16	-2	-20	-4	-16	12	28	31	5	-13	-1	20	-4	-22	-6	-17	-34	-37	-0.7
Keene	Maximum	36	34	31	35	37	33	20	22	32	14	16	18	23	30	22	13	27	28	34	36	34	24	35	39	23	12	27	14	-4	1	25.2	
	Minimum	31	23	19	10	10	14	5	-3	12	-3	-15	-15	-8	15	5	-20	0	-5	22	28	31	16	10	3	23	-3	-17	0	-13	-26	-27	3.3
Plymouth	Maximum	35	35	24	30	35	33	21	20	29	15	9	8	15	25	19	11	17	21	30	32	35	37	21	23	40	25	9	24	19	-7	-2	22.2
	Minimum	25	20	16	9	10	12	5	3	14	-7	0	-14	-6	13	5	-3	0	-19	20	26	30	17	6	0	22	4	-16	-1	-14	-20	-16	4.6
Vermont.																																	
Burlington	Maximum	36	30	25	27	32	26	12	25	30	14	10	10	21	20	10	1	17	27	33	37	41	38	21	38	41	13	12	26	-18	-13	-8	20.5
	Minimum	30	20	14	12	24	2	-2	5	9	5	-7	-12	4	13	-11	-18	-2	3	26	38	36	2	-5	21	13	-6	-12	-16	-23	-25	-19	3.7
Enosburg Falls	Maximum	37	33	21	24	34	24	10	20	30	15	10	10	26	23	17	0	20	30	35	37	43	40	15	38	39	15	7	26	-11	-11	-5	21.2
	Minimum	32	19	7	-3	21	-3	-15	-13	15	3	-12	-21	-10	10	-15	-30	-10	-10	23	31	33	1	-14	-3	14	-8	-17	-12	-26	-32	-32	-2.0
Northfield	Maximum	35	32	24	21	34	27	13	19	29	11	8	4	17	20	18	3	15	23	31	32	36	36	14	43	14	11	9	28	-15	-12	-8	19.4
	Minimum	29	17	6	-3	16	-7	-15	-10	9	2	-17	-26	-14	13	-16	-28	-9	-12	73	28	31	-6	-18	8	11	-17	-24	-17	-32	-41	-41	-5.2
St. Johnsbury	Maximum	36	34	28	21	35	28	16	10	29	17	12	5	13	24	12	3	16	18	31	33	40	37	14	31	39	23	5	25	-1	-9	1	20.2
	Minimum	29	20	16	-1	15	6	-12	-7	10	-4	-6	-26	-16	6	2	-29	-10	-19	6	28	31	14	-19	-5	22	2	25	-7	-22	-43	-40	-2.7
Wells	Maximum	35	32	20	25	30	30	16	20	20	12	8	10	20	20	16	8	10	25	35	35	36	12	34	33	38	20	10	20	7	-15	-10	19.6
	Minimum	24	18	16	8	16	12	3	0	8	3	-6	-6	0	12	6	-12	0	6	12	26	28	10	-4									





Scale of Rainfall

0.5	1	2	4	6	8	12	20	24
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## Daily Precipitation for December, 1917—Continued from page 93.

Stations.	Watersheds.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Rhode Island.																																	
Block Island ***	Coast	.35							.67		.01	T.	T.	.13	.64			T.								.01	.05			T.	.04		1.90
Bristol	do	.53	T.						.96		T.	T.	T.		.73			T.									.01				.03		2.27
Greene	do																																
Hope Valley	do																																
Kingston	do	.65							.85		T.				.60											.05				.05	.10		2.30
Narrag'sett Pier ***	do	.49	T.						.20	.70	T.			T.	.62			T.								.02	.08			.02	.10		2.23
Pawtucket	do	*	.99						.89		.01					.98			.01							.62				*	.04		2.94
Providence ***	do	.71	T.						.86		.01		T.	.05	.40			T.	T.	T.						.02	.01			.03	.01		2.10
Wallum Lake	do	1.20				.10			.80						.90											.10							3.10
Connecticut.																																	
Bridgeport	Coast	1.33							.80	.11				.05	1.05			.07								.01	.12				.05		3.59
Canton	Connecticut	1.21							.58					*	1.70											.02					T.		3.51
Colchester	Coast	1.28							1.18						.60			T.								T.	.06			T.	T.		3.12
Cream Hill	Housatonic	1.35							.20	.20					1.00			.10								.01				.02			2.88
Danielson	Coast	T.							.25		.05				.80															T.			1.10
East Hartland	do	1.64							.68						1.08															.02	.01		3.43
Falls Village	Housatonic	.98				T.			.30	.07				.45	.49			.06												.02			2.28
Hartford **	Connecticut	1.10							.68		T.				.95			T.									.01	.01		T.	.02		3.22
Lake Konomocoff	Coast	1.50							.80	1.80					.68																		3.98
New Haven ***	do	1.32							.80		T.			.80	.79			.02	.03						T.		T.	.11		T.	.03		3.90
New London	do								.60						.70												.04	.02		T.		.04	1.40
N. Grosvenor Dale	do	1.04				T.			.62					*	.86			.15										.05					2.51
Norwalk	do	.98							1.04		.04				1.75			.20										.04			.07		3.18
Southington	do	1.30							T.	.85																				T.			4.10
Storrs	Coast	*	1.22			T.			.63						1.45			.18												T.			3.48
Torrington	Housatonic	.87							1.08	T.					.42												*	.12		T.	.03		2.52
Voluntown	Coast																													T.			2.09
Waterbury	Housatonic	1.20							.04						.64			T.		T.	T.	T.	T.	T.			.01	.20			T.		

## Special River Rainfall Stations.

Maine.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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## Daily Evaporation (inches) and Wind Movement (miles).

Gardiner, Me.	Evaporation																																
Dorchester Center, Mass.	Wind movement																																
	Evaporation																																
	Wind movement																																

|| Observations taken at 6 p. m.

||| Observations taken at 7 a. m.

See temperature and precipitation data in Climatological Tables.

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

T. Precipitation is less than 0.01 inch rain or melted snow. \* Precipitation indicated in that of following day.  
 || Post-office addresses of these stations are as follows: Longtown, Redington, Me.; Bakers Bridge, South Lincoln, Mass.; Lake Cocinate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.; Moss Brook, Wendell Depot, Mass.; Priest Brook, Winchendon, Mass.; Sewall's Falls, Concord, N. H.

## Comparative Data for New England for December.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.								
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888....	30.3	69	-15	4.46		10	4.6	9	10	12		nw.	12.2	70	ne.	1903....	22.3	57	-24	3.14	2.75	10	13.0	12	8	11	51	w.	11.6	69	s.
1889....	33.8	71	-22	3.09		14	6.7	10	10	11		nw.	11.4	60	ne.	1904....	18.3	61	-34	2.40	1.77	9	16.1	11	9	11	44	nw.	10.1	64	n.
1890....	21.1	54	-36	4.12		12	18.2	10	10	10		nw.	12.0	82	ne.	1905....	28.6	62	-28	3.59	3.45	8	9.3	12	7	12	45	nw.	9.8	64	nw.
1891....	35.9	67	-4	4.07		11	2.3	12	8	15		nw.	12.5	63	se.	1906....	22.7	55	-30	3.59	2.54	11	15.6	8	6	17	31	nw.	10.4	63	nw.
1892....	24.9	54	-17	1.32		10	5.1	10	10	11		nw.	10.8	70	se.	1907....	30.7	75	-14	4.29	2.51	9	10.2	11	8	12	43	nw.	10.8	70	se.
1893....	25.5	62	-35	2.94		16	20.5	9	9	13		nw.	12.2	61	w.	1908....	26.2	65	-39	3.15	2.63	10	11.8	12	8	11	43	nw.	11.0	74	ne.
1894....	27.3	59	-32	3.62		11	16.6	11	10	16		nw.	11.3	72	ne.	1909....	25.5	62	-23	2.91	3.08	6	14.1	15	8	8	49	nw.	12.0	72	ne.
1895....	21.8	71	-20	3.35		9	5.7	9	9	13		n.	13.9	81	se.	1910....	21.4	57	-21	2.56	1.92	9	9.8	12	8	11	42	nw.	11.9	64	se.
1896....	21.6	59	-21	1.68	1.78	7	8.7	13	8	10		n.	11.8	83	ne.	1911....	32.9	68	-13	3.13	3.20	8	6.4	11	7	13	39	nw.	11.1	67	w.
1897....	28.4	64	-15	4.78	3.88	13	9.7	7	8	16		nw.	11.9	55	se.	1912....	31.7	69	-15	4.34	2.05	8	8.6	13	7	11	50	sw.	11.9	65	s.
1898....	26.4	54	-30	2.43	2.43	9	4.7	11	9	11		nw.	10.8	72	se.	1913....	31.3	63	-23	3.24	2.52	7	9.5	13	7	11	46	nw.	11.1	62	w.
1899....	31.4	68	-16	2.10	1.33	8	3.0	13	8	10		nw.	11.1	68	se.	1914....	24.4	67	-22	3.04	2.82	9	6.9	13	7	11	45	nw.	11.8	71	ne.
1900....	25.9	61	-28	2.27	2.75	6	6.8	12	9	10		nw.	10.5	84	se.	1915....	27.4	62	-23	4.34	2.75	11	15.8	10	6	15	39	nw.	12.3	86	nw.
1901....	25.9	67	-28	7.53	4.93	12	17.7	10	8	13		nw.	11.1	77	ne.	1916....	25.9	66	-27	3.37	3.00	11	15.3	13	6	12	49	nw.	12.8	82	nw.
1902....	23.0	61	-39	5.32	2.65	13	24.2	12	7	12		nw.	10.2	73	ne.	1917....	16.7	54	-44	2.66	2.21	6	17.9	14	6	11	46	nw.	11.4	76	e.



U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

ANNUAL, 1917

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BY  
JOHN W. SMITH  
METEOROLOGIST

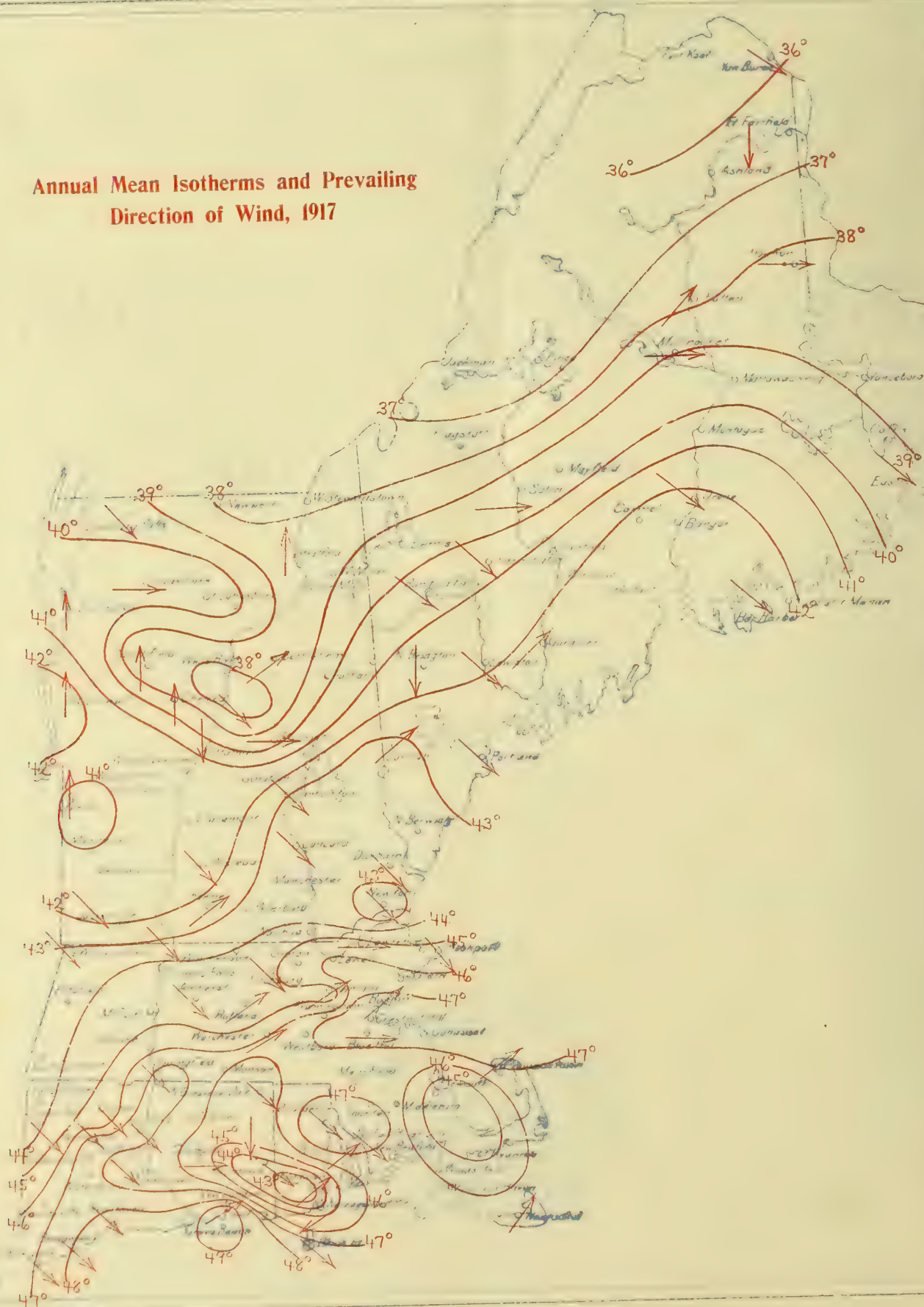
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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
FEBRUARY 23, 1918



# Annual Mean Isotherms and Prevailing Direction of Wind, 1917





U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

VOL. XXIX. BOSTON, MASS., ANNUAL, 1917. No. 13.

## GENERAL SUMMARY.

The annual mean temperature (entire district),  $43.4^{\circ}$ , was  $2.2^{\circ}$  below the normal, based on stations having ten or more years' records, and  $1.8^{\circ}$  below the mean of the year 1916.

Annual means by States: Maine,  $40.0^{\circ}$ ; New Hampshire,  $41.6^{\circ}$ ; Vermont,  $40.8^{\circ}$ ; Massachusetts,  $45.7^{\circ}$ ; Rhode Island,  $45.9^{\circ}$ ; Connecticut,  $46.6^{\circ}$ .

The highest annual mean,  $49.2^{\circ}$ , at New London, Conn.; lowest annual mean,  $35.8^{\circ}$ , at Van Buren, Me. Highest recorded,  $102^{\circ}$ , at Bridgeport, Conn. on July 31, and Waterbury, Conn. on August 1; lowest recorded,  $-43^{\circ}$ , at Bloomfield and St. Johnsbury, Vt. on December 30, and Hyde Park, Vt. on December 31. Annual range for New England,  $145^{\circ}$ ; greatest local annual range  $140^{\circ}$ , at St. Johnsbury, Vt.; least local annual range,  $84^{\circ}$ , at Nantucket, Mass.; greatest local daily range,  $63^{\circ}$ , at Patten, Me. on December 31.

The annual average precipitation (entire district), 39.63 inches, was 1.81 inches below the normal, based on stations having ten or more years' records, and 0.87 inch below the average for the year 1916.

Annual State averages: Maine, 45.04 inches; New Hampshire, 35.91 inches; Vermont, 33.95 inches; Massachusetts, 39.56 inches; Rhode Island, 38.32 inches; Connecticut, 40.79 inches.

The greatest annual amount, 58.02 inches, at Bar Harbor, Me.; least annual amount, 27.46 inches, at Rutland, Vt. Greatest local monthly amount, 12.26 inches, at Cornish, Me. in June; least monthly amount, 0.19 inch, at Block Island, R. I. in November; greatest amount in any 24 consecutive hours, 4.15 inches, at Portland, Me. on June 17. Average number of days with 0.01 inch or more, 123.

Average annual mean pressure, 30.01 inches. Highest recorded, 30.97 inches, at Eastport and Portland, Me. on December 17; lowest recorded, 28.23 inches, at Eastport, Me. on January 19. Annual range for New England, 2.74 inches.

Prevailing direction of wind, northwest; maximum velocity, northwest, 84 miles per hour, on October 30, at Blue Hill, Mass.

## THE WEATHER BY MONTHS.

**JANUARY.**—The weather during the month was seasonal, with no marked extremes in any feature. The average temperature and precipitation for the month were near the normal, also the snowfall. The ground was generally well covered with snow in the southern portion of the section, except during the second decade.

**FEBRUARY.**—The temperature was much below the normal during the first and second decades, and near the normal during the remainder of the month. The precipitation was generally in moderate amounts and below the normal. The only heavy snowstorm was on the 5th, when from 8 to 15 inches fell over the greater portion of the interior and northern part of the section. Snow covered the ground through the month, with depths varying from a few inches on the coast to 16 inches in the interior of the southern portion, and between 2 and 4 feet in the interior of the northern States.

**MARCH.**—The temperature and precipitation were near the normal. The only heavy snowfall was on the 5-6th, when from 12 to 15 inches fell in the southeastern portion of the section. There was from 3 to 5 feet of snow on the ground in the interior of the northern States at the beginning of the month, but as it melted gradually no floods occurred, and at the close of the month

only about 12 inches remained. In the southern States the ground was generally bare after the middle of the month.

**APRIL.**—April was colder than usual, with a moderate deficiency in precipitation. Snow fell frequently during the first half of the month in the northern States. From 3 to 12 inches of snow fell on the coast on the 9th, but which melted within a few days.

**MAY.**—The conditions during May were very unfavorable, the month being abnormally cool and deficient in sunshine. The average temperature,  $47.8^{\circ}$ , was the lowest of record for this month, and  $2.1^{\circ}$  below the average for the previous coldest May. At Amherst, Mass., in a record extending back to 1837, the average temperature was lower than that of any previous month of its name, also at Fitchburg, Mass., in a record extending back to 1855. The rainfall was near the normal, but the snowfall was greater than that of any previous May in the record of the section.

**JUNE.**—The month was marked by an excessive precipitation, particularly in the eastern portion of the section, where in some localities much damage was caused to crops and highways by heavy rains. The average temperature and amount of sunshine were below the normal. The excessive rainfall and lack of sunshine were very detrimental to planting and seed germination, much seed being lost from being washed out or rotting in the ground. At the end of the month the season was from 2 to 3 weeks later than the average.

**JULY.**—July was somewhat warmer than usual, with a moderate deficiency in rainfall, conditions which were greatly needed after the excessive moisture and low temperature of the preceding three months. Thunderstorms were frequent during the last decade and were of marked severity in some localities, with lightning of great intensity, heavy rain, high winds and hail. In parts of the Connecticut Valley great damage was done to growing crops by wind and hail.

**AUGUST.**—The average temperature and rainfall were above the normal. At the majority of stations the total rainfall for the month was more than four inches, and at a considerable number of stations it exceeded 7 inches. Thunderstorms were unusually frequent, and in many instances were accompanied by severe lightning, high winds, heavy rain and hail, buildings being struck and burned, and crops damaged. The hailstorms on the 2d and 21st in the tobacco sections of Massachusetts and Connecticut, were reported to have been among the most destructive of record.

**SEPTEMBER.**—Unusually cool weather for the season prevailed, the average temperature for the section being, with one exception, the lowest of record for this month. Killing frost was general on the 11th and 12th, occurring from one to two weeks earlier than usual. Owing to the backward condition of crops, great damage was done to corn, tobacco, cranberries, and all tender vegetation. The rainfall, as a rule, was light and scattered, and generally less than one-half the usual amount. Over a considerable portion of the northern States the monthly totals were less than one inch.

**OCTOBER.**—Cool fall weather prevailed, with day temperatures below the average. The rainfall was one of the greatest for the month in the section record, with totals between 5 and 7 inches at the greater number of stations. Snow fell over the northern portions of the northern States on the 12th, but in amounts generally less than two inches, except in parts of northern Maine, where there was from 8 to 10 inches.

**NOVEMBER.**—The month was colder than usual, deficient in precipitation, with more than the usual amount of sunshine. During the last week minimum temperatures from zero to  $-20^{\circ}$  occurred in parts of the northern States. The precipitation was nearly all confined to the last decade. The northern portion of the section was generally covered with snow during the last week of the month, but the southern portion was bare until the last few days.

**DECEMBER.**—The month was unusually cold, with average temperature below that of any previous December. One of the most severe cold waves of record prevailed during the last three days of the month, with minimum temperatures in the northern States from  $-20^{\circ}$  to  $-40^{\circ}$ , and in the southern States from  $-10^{\circ}$  to  $-20^{\circ}$ . At many stations all previous records of low temperature were broken. The snowfall was greater than usual. In the southern coast sections there was little snow on the ground during the first part of the month, and only moderate amounts at anytime. In the interior and northern portions, however, the ground was well covered through the month, with depths from 6 to 20 inches.



## MONTHLY EVAPORATION AND WIND MOVEMENT.

Stations.	May.	June.	July.	Aug.	Sept.	Oct.
<i>Gardiner, Me.:</i>						
1915 Evaporation .....			4.00	4.33	3.40	1.73
Wind .....			630	474	802	605
1916 Evaporation .....	4.20	3.81	4.52	4.43	4.30	2.49
Wind .....	850	630	710	590	730	771
1917 Evaporation .....	3.49	3.71	5.69	4.85	3.17	1.67
Wind .....	2,775	1,770	1,636	1,459	1,500	2,505
<i>Dorchester Center, Mass.:</i>						
1917 Evaporation .....	3.53	3.01	3.44	3.15	2.40	1.30
Wind .....	2,062	616	492	356	466	817

NOTE.—Description of evaporation stations may be found in the August, 1917, Monthly Bulletin.

## KILLING FROSTS.

Stations.	Last in spring.	First in autumn.	Stations.	Last in spring.	First in autumn.
<i>Maine.</i>			<i>Massachusetts—Continued.</i>		
Bar Harbor.....	May 16	Sept. 23	Blue Hill.....	May 6	Oct. 21
Cornish.....	May 17	Sept. 11	Boston.....	Apr. 11	Nov. 5
Eastport.....	May 16	Oct. 18	Chestnut Hill.....	Apr. 26	Oct. 12
Farmington.....	May 31	Sept. 9	Clinton.....	Apr. 25	Sept. 24
Gardiner.....	May 8	Sept. 23	Concord.....	May 16	Sept. 11
Greenville.....	May 28	Sept. 11	Fall River.....	May 25	Nov. 4
Houlton.....	May 31	Sept. 19	Fitchburg.....	May 4	Sept. 24
Lewiston.....	May 8	Sept. 12	Framingham.....	May 26	Sept. 21
Madison.....	May 27	Sept. 11	Lawrence.....	May 4	Oct. 12
Millinocket.....	May 31	Sept. 8	Lowell.....	May 4	Sept. 24
North Bridgton.....	May 16	Sept. 11	Nantucket.....	May 11	Sept. 24
Orono.....	May 31	Sept. 23	New Bedford.....	Apr. 4	Nov. 8
Portland.....	May 6	Nov. 2	Plymouth.....	May 16	Oct. 12
Presque Isle.....	May 31	Sept. 8	Provincetown.....	May 12	Nov. 8
Rumford Falls.....	Apr. 26	Sept. 23	Rockport.....	May 18	Nov. 3
Van Buren.....	June 7	Sept. 8	Rutland.....	May 15	Sept. 10
Winslow.....	May 31	Sept. 11	Turners Falls.....	May 16	Sept. 11
<i>New Hampshire.</i>			Westboro.....	Apr. 12	Oct. 12
Alstead Center.....	May 16	Sept. 11	Williamstown.....	May 4	Sept. 11
Bethlehem.....	May 17	Sept. 11	Worcester.....	Apr. 11	Nov. 1
Concord.....	May 4	Sept. 11	<i>Rhode Island.</i>		
Durham.....	May 16	Sept. 11	Block Island.....	Apr. 14	Nov. 19
Franklin.....	May 18	Sept. 11	Bristol.....	Apr. 11	Nov. 4
Glendon.....	May 24	Sept. 11	Kingston.....	May 26	Sept. 11
Grafton.....	May 28	Sept. 11	Narragansett Pier.....	May 4	Oct. 12
Hanover.....	May 18	Sept. 11	Providence.....	Apr. 14	Nov. 1
Keene.....	May 18	Sept. 11	<i>Connecticut.</i>		
Nashua.....	May 31	Sept. 11	Bridgeport.....	May 4	Oct. 21
Plymouth.....	May 24	Sept. 11	Canton.....	May 16	Oct. 13
<i>Vermont.</i>			Colchester.....	May 16	Sept. 11
Bloomfield.....	May 31	Sept. 10	Cream Hill.....	May 6	Sept. 11
Burlington.....	May 16	Sept. 22	Danielson.....	May 4	Oct. 12
Chelsea.....	May 24	Aug. 27	Hartford.....	May 15	Oct. 21
Cornwall.....	May 16	Sept. 23	New Haven.....	Apr. 14	Oct. 31
Enosburg Falls.....	May 24	Sept. 10	New London.....	Apr. 14	Oct. 31
Northfield.....	May 24	Sept. 10	N. Grosvenor Dale.....	May 16	Sept. 11
Somerset.....	May 30	Sept. 8	Norwalk.....	May 16	Oct. 13
St. Johnsbury.....	May 23	Sept. 11	Southington.....	May 16	Sept. 11
Wells.....	May 17	Sept. 10	Storrs.....	May 16	Oct. 12
Woodstock.....	May 24	Sept. 11	Torrington.....	May 16	Sept. 11
<i>Massachusetts.</i>			Voluntown.....	May 31	Sept. 11
Amherst.....	May 16	Sept. 11	Waterbury.....	May 16	Oct. 13

## MONTHLY AVERAGES AND EXTREMES, 1917.

Year.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
Jan.....	21.9	55	-36	3.18	1.87	12	16.6	10	6	15	39	nw.	12.0	79	w.
Feb.....	18.6	51	-39	2.19	1.50	8	12.8	12	6	15	53	nw.	12.7	72	w.
March.....	31.3	65	-18	3.71	2.13	12	15.9	13	1	11	65	nw.	13.1	69	se.
April.....	41.3	79	3	2.53	2.03	11	4.5	10	2	13	49	nw.	11.1	63	nw.
May.....	47.8	86	20	3.41	1.62	13	2.4	8	10	15	45	nw.	12.0	63	nw.
June.....	63.2	92	31	6.14	4.15	15	0	10	12	11	56	sw.	8.7	48	sw.
July.....	70.1	102	42	2.51	1.08	19	0	11	9	8	61	sw.	8.1	54	ne.
Aug.....	63.5	102	24	5.10	3.61	11	0	17	7	6	63	sw.	8.2	67	ne.
Sept.....	57.1	90	21	1.60	3.60	7	0	11	13	49	8	sw.	11.4	84	s.
Oct.....	49.9	81	10	5.81	2.88	1	4	16	6	8	57	nw.	11.2	57	nw.
Nov.....	33.5	70	-20	0.96	1.20	5	4	16	6	11	46	nw.	11.4	76	e.
Dec.....	16.7	50	-44	2.66	2.21	6	17.9	14	6	11	46	nw.	11.4	84	nw.
Means.....	43.2	102	-44	3.99	4.15	12.9	74.4	147	89	129	52	nw.	10.7	84	nw.

## COMPARATIVE DATA FOR NEW ENGLAND.

Year.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888.....	44.3	101	-44	56.19	.....	147	75.4	109	131	126	.....	nw.	10.4	84	ne.
1889.....	48.6	98	-44	49.37	.....	138	44.4	104	115	146	.....	sw.	10.2	78	ne.
1890.....	46.3	100	-36	50.33	.....	147	59.6	107	123	135	.....	nw.	10.9	82	ne.
1891.....	47.4	101	-30	44.95	.....	133	53.0	116	121	128	.....	nw.	10.5	72	ne.
1892.....	45.8	102	-30	38.79	.....	127	53.2	124	110	102	.....	nw.	10.6	77	ne.
1893.....	44.6	102	-39	40.14	.....	136	90.2	126	113	126	.....	nw.	10.4	88	se.
1894.....	46.7	106	-42	35.85	.....	127	80.9	122	114	129	53	sw.	10.0	87	e.
1895.....	46.1	100	-29	41.27	.....	122	45.0	130	115	120	54	sw.	10.6	81	s.
1896.....	47.4	102	-27	40.97	8.31	127	67.9	121	112	134	48	sw.	11.8	80	ne.
1897.....	46.4	102	-29	46.79	8.11	122	64.7	131	100	134	47	nw.	11.4	70	ne.
1898.....	46.4	103	-39	50.66	6.22	129	86.1	130	102	133	48	nw.	10.3	97	ne.
1899.....	46.1	101	-32	40.40	6.50	110	69.3	153	98	114	55	nw.	10.3	78	w.
1900.....	47.5	105	-30	45.69	5.75	106	66.1	152	103	109	56	nw.	10.7	84	e.
1901.....	45.6	104	-31	47.92	5.29	114	56.5	144	90	131	53	nw.	10.4	81	ne.
1902.....	46.0	106	-30	46.94	4.43	124	67.9	143	98	123	51	nw.	10.1	73	ne.
1903.....	45.8	106	-37	41.78	5.15	116	79.5	153	95	118	56	nw.	9.7	72	e.
1904.....	42.8	98	-44	40.05	6.15	111	70.1	151	94	120	54	sw.	9.6	84	nw.
1905.....	44.4	102	-36	40.55	5.19	111	70.1	151	94	120	54	sw.	9.7	68	se.
1906.....	46.4	106	-45	43.24	5.51	117	80.5	137	102	126	50	nw.	9.9	77	nw.
1907.....	44.1	101	-39	35.62	5.23	102	53.4	171	93	102	57	nw.	10.3	84	s.
1908.....	46.0	100	-32	40.56	5.26	112	55.6	153	99	113	51	nw.	10.2	90	s.
1909.....	46.0	99	-31	35.52	5.04	111	53.6	153	98	114	52	nw.	10.4	78	se.
1910.....	46.5	106	-33	38.76	6.04	112	55.2	158	91	116	53	nw.	10.6	70	ne.
1911.....	46.5	101	-39	41.88	4.88	110	54.9	161	95	110	56	nw.	10.7	79	s.
1912.....	45.4	102	-36	40.52	4.99	109	29.8	161	86	118	54	sw.	10.8	70	sw.
1913.....	48.0	99	-41	35.07	5.72	104	58.3	154	95	116	53	nw.	10.8	88	w.
1914.....	45.0	96	-38	40.51	4.86	115	46.0	148	99	118	52	nw.	10.4	86	w.
1915.....	46.8	106	-34	40.50	6.72	130	90.3	153	89	124	52	nw.	10.9	82	nw.
1916.....	45.2	102	-44	39.80	4.15	123	74.4	147	89	129	52	nw.	10.7	84	nw.
1917.....	43.2	102	-44	39.80	4.15	123	74.4	147	89	129	52	nw.	10.7	84	nw.
Means.....	46.0	106	-45	42.34	8.31	120	62.4	140	103	122	53	nw.	10.4	97	ne.

## SUPPLEMENTAL RAINFALL DATA, 1917.

Stations.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	An'l.
<i>Maine.</i>													
Ashland	1.67	0.83	1.75	2.61	3.69	6.64	3.52						
Brownville			3.74	2.40	1.90				0.65	5.82			
Danforth	4.91	2.29	3.10	4.22									
Eustis	2.21	1.70	2.17	2.16	2.65	8.12	3.15	6.75	2.10		0.97		
Howe Brook	4.10	1.80	3.86	4.46									
Langtown	2.15	1.70	2.14	2.56			4.68	6.04					
Mattawankeag			2.38	3.51	4.42				0.87	6.98			
West Enfield			3.42	1.80	1.48								
Wytopicklock							3.99	4.92	1.32	7.92	1.06		
<i>New Hampshire.</i>													
Brookline	3.35	2.87	3.68	2.48	3.93	5.57	1.48	4.76	0.62	5.36	1.00	5.17	40.27
Franklin Junction			2.30	2.37	2.66				0.63	4.13			
Laconia			2.45	2.23	2.09								
Manchester			3.17	1.86	3.67				0.92	4.23			
Sewall's Falls			2.34	2.09	3.02				0.49	3.89			
West Stewartstown	3.34	1.40	1.80	1.21	1.61				1.28	5.77			
<i>Vermont.</i>													
Bellows Falls			2.94	1.81	3.24				0.44	6.11			
Wells River			2.28	2.58	3.18				2.18	4.12			
White River Junction	3.16	1.75	2.66	2.17	2.35	6.56	2.44	2.98	0.72	5.11			
<i>Massachusetts.</i>													
Ashland	3.49	2.64	4.76	2.62	4.70	4.05	1.06	5.74	1.61	5.51	1.26	2.66	40.10
Bakers Bridge	2.61	1.86	2.88	3.09	5.07	4.20	1.54	2.56	0.73	4.36	1.22	2.40	32.52
Bedford	2.41	2.24	3.29	2.51	4.07	4.26	1.41	4.24	1.74	4.89	0.85	2.46	34.37
Brockton	3.00	1.80	3.75	2.34	4.21	4.91				5.96	0.46		
Haverhill	2.64	1.96	3.60	3.07	3.15	5.13	1.89	2.01	1.06	5.81	1.06	2.96	34.34
Hingham	3.74	0.92	4.74	3.69	5.32	5.54	2.01	8.54	2.33	6.86	0.47	2.56	46.72
Holyoke								2.16	0.67	5.69	0.82		
Hyannis	2.73	3.53	6.98	4.47	4.20	6.67	2.84	2.46	3.10	4.78	0.57	2.35	43.68
Jefferson	3.72	3.91	4.67	1.87	3.75	4.86	1.18	5.29	1.29	6.37	1.39	2.64	40.94
Lake Cochituate	3.28	2.81	4.82	2.67	4.89	4.33	1.02	5.79	1.77	6.33	1.28	2.70	41.65
Leominster	3.15	3.03	3.41	2.11	3.86	5.05	2.14	3.82	0.90	5.95	1.01	3.04	37.37
Moss Brook	3.12	2.62	1.93	1.10	2.75	4.98	1.95	6.74	0.24				
Priest Brook	3.12	1.76	2.81	1.58	3.82	4.78	2.71	8.00	0.77				
Princeton	3.15	2.68	3.28	1.89	2.68	4.33	0.84	3.31	1.22	6.18	1.15	1.09	32.80
Somerset	2.87	2.55	3.87	3.04	5.20	4.33	1.12	3.95	2.95	5.95	0.24	1.80	37.97
Spot Pond	3.41	2.56	3.56	3.22	4.72	4.16	1.22	6.33	1.79	4.51	1.10	2.80	40.35
Sterling	3.24	2.90	4.07	1.65	3.94	4.47	1.37	3.26	1.01	6.29	0.91	2.94	36.05
Taunton	3.62	2.38	4.79	3.69	5.56	5.20	0.84	5.85	3.07	6.87	0.41	2.85	45.13
Winchendon	3.42	2.48	3.58	1.75	3.20	5.47	2.92	8.64	1.00	5.91	0.94	3.27	42.58
<i>Rhode Island.</i>													
Greene	2.89	2.20	4.73	1.94	3.33	4.27	1.66	7.52	2.87	5.71	0.28	2.65	40.05
Hope Valley	4.11	2.78	6.53	3.41	3.78	5.13	2.85	7.41	4.02	5.51	2.85		
Pawtucket	3.17	2.19	6.27	3.16	4.49	5.01	1.09	5.83	2.54	6.48	0.31	2.94	43.81
Waltham Lake	3.75	2.00	3.56	1.78	4.23	5.06	1.94	5.70	2.03	6.28	1.03	3.10	40.86
<i>Connecticut.</i>													
East Hartland	3.07	4.14	4.14	2.57	4.28	4.80	2.51	6.40	0.54	9.07	1.03	3.46	46.50
Falls Village	3.19	2.58	2.90	2.08	2.93	4.75	1.86	3.01	0.40	6.43	0.95	2.38	33.42
Lake Konomoc	3.85	3.62	8.74	2.44	3.99	4.64	2.36	5.53	4.11		0.71	3.98	



## Climatological Data for the Year 1917.

Stations.	Counties.	Elevation, feet.	Temperature (degrees Fahrenheit).						Precipitation (Inches).						Sky.				Prevailing direction of wind.	
			Length of record, years.	Annual mean.	Highest.	Date.	Lowest.	Date.	Length of record, years.	Total for the year.	Greatest monthly.	Month.	Least monthly.	Month.	Total snowfall.	Number rainy days.	Number clear days.	Number partly cloudy days.		Number cloudy days.
Maine.																				
Bar Harbor	Hancock	20	31	42.5	88	July 26	-21	Dec. 30	31	58.02	10.29	June	2.16	Nov.	62.5	123	225	52	88	nw.
Cornish	York	778	62	43.3	97	Aug. 1*	-36	Dec. 30	62	51.28	12.26	June	1.17	Nov.	99.0	115	123	162	140	sw.
Eastport	Washington	53	45	39.1	84	July 31	-22	Dec. 30	45	38.42	7.40	June	1.51	Sept.	92.7	145	94	118	153	sw.
Farmington	Franklin	450	20	40.4	95	Aug. 2	-36	Dec. 30	27	49.00	10.74	June	1.12	Nov.	100.0	135	121	111	133	nw.
Gardiner	Kennebec	163	25	42.2	93	July 31	-27	Dec. 30	25	42.63	8.88	June	0.71	Sept.	103.0	131	170	53	142	sw.
Greenville	Piscataquis	1,140	13	37.0	90	July 26*	-37	Dec. 30	13	49.94	8.69	June	1.26	Nov.	138.5	159	128	75	162	sw.
Houlton	Aroostook	362	15	38.7	94	Aug. 2	-30	Dec. 30	15	35.46	6.91	June	0.90	Nov.	119.5	91	161	91	113	w.
Lewiston	Androscoggin	185	34	41.3	94	July 26	-27	Dec. 30	44	49.46	11.16	June	0.62	Sept.	111.3	136	122	152	91	nw.
Madison	Somerset	257	14	39.3	97	Aug. 3	-34	Dec. 31	14	42.64	9.96	June	0.28	Nov.	88.0	115	195	45	125	w.
Millinocket	Penobscot	386	14	39.0	93	July 26	-35	Dec. 31	14	50.51	9.89	June	1.35	Sept.	135.2	138	166	29	170	n.
North Bridgton	Cumberland	450	24	41.8	97	July 31*	-30	Dec. 30	24	48.97	11.20	June	0.52	Sept.	124.0	138	143	93	129	n.
Orono	Penobscot	129	48	42.2	91	July 26*	-29	Dec. 30	49	43.96	7.49	June	1.08	Sept.	117.3	120	216	66	83	nw.
Patten	do	550	15	37.7	94	July 23*	-30	Dec. 29	15	44.24	8.90	June	0.00	Sept.	115.0	60	131	19	163	sw.
Portland	Cumberland	99	46	32.6	92	July 31	-21	Dec. 30	74	45.54	10.86	June	0.32	Sept.	75.4	139	144	74	150	nw.
Presque Isle	Aroostook	1,000	8	36.4	94	Aug. 2	-35	Dec. 30	8	41.34	7.69	June	1.35	Nov.	136.0	110	165	68	132	n.
Rumford	Oxford	505	24	40.8	93	July 6*	-20	Dec. 29*	24	43.91	10.40	June	1.06	Nov.	106.1	131	194	58	113	nw.
Van Buren	Aroostook	510	13	35.8	91	July 26	-37	Dec. 27	13	39.21	7.86	June	0.76	Dec.	100.8	120	100	8	121	nw.
Winslow	Kennebec	90	22	.....	97	July 4	-25	Dec. 30	22	36.13	8.23	June	0.68	July	77.4	104	163	78	124	w.
New Hampshire.																				
Alstead Center	Cheshire	1,120	13	41.9	93	Aug. 1	-26	Dec. 30	13	37.30	8.19	June	0.55	Sept.	123.0	129	193	64	108	nw.
Berlin	Coos	1,090	20	.....	92	July 30*	-33	Dec. 30	25	35.03	7.02	June	0.60	Nov.	80.1	132	140	86	139	sw.
Bethlehem	Grafton	1,470	25	38.1	92	July 30*	-33	Dec. 30	25	35.03	7.02	June	0.60	Nov.	80.1	132	140	86	139	sw.
Concord	Merrimack	350	57	43.2	99	Aug. 1	-17	Dec. 30	57	31.01	8.30	June	0.57	Sept.	79.3	124	151	90	124	nw.
Durham	Stafford	88	22	43.3	98	Aug. 2	-26	Dec. 30	23	36.48	7.52	June	0.43	Sept.	51.3	109	169	75	121	nw.
Franklin	Merrimack	440	18	43.2	98	Aug. 4	-28	Dec. 31	18	39.02	7.51	June	0.87	Sept.	85.5	138	157	83	125	nw.
Glencoff	Grafton	1,650	4	38.8	93	Aug. 1	-28	Dec. 31	8	41.13	7.26	June	0.72	Nov.	120.4	139	153	83	129	nw.
Grafton	do	863	31	.....	97	Aug. 2	-37	Dec. 31	77	30.79	6.67	June	0.55	Nov.	66.6	149	150	102	113	n.
Hanover	do	603	83	41.3	98	July 10*	-37	Dec. 31	30	36.95	5.79	June	0.52	Nov.	62.2	127	150	102	113	n.
Keenes	Cheshire	506	32	42.8	96	Aug. 1	-27	Dec. 31	30	36.95	5.79	June	0.52	Nov.	62.2	127	150	102	113	n.
Newton	Rockingham	126	29	42.9	97	July 30	-22	Dec. 30	29	36.40	6.32	Oct.	0.88	Sept.	55.5	95	130	152	83	nw.
Plymouth	Grafton	500	29	40.9	92	July 30*	-20	Dec. 30	30	34.96	7.27	June	0.67	Sept.	100.2	124	162	35	168	w.
Vermont.																				
Bloomfield	Essex	404	10	38.2	93	Aug. 1	-43	Dec. 30	9	38.96	7.64	Aug.	0.45	Nov.	101.9	177	131	84	150	s.
Burlington	Chittenden	404	10	40.7	98	Aug. 1	-25	Dec. 30	11	31.71	5.76	Oct.	0.95	Nov.	68.8	152	88	115	167	s.
Cavendish	Windsor	910	14	.....	98	Aug. 1	-42	Dec. 31	14	35.24	5.37	Oct.	0.87	Sept.	94.3	117	137	75	149	s.
Chelsea	Orange	840	22	.....	95	Aug. 1	-40	Dec. 30	22	.....	5.67	Oct.	0.76	Nov.	.....	111	137	75	149	s.
Cornwall	Addison	517	24	42.9	98	July 30*	-23	Dec. 30	31	29.49	6.60	Oct.	0.69	Nov.	.....	159	153	89	122	nw.
Enosburg Falls	Franklin	601	26	39.7	96	Aug. 1	-32	Feb. 14*	26	37.92	7.09	Oct.	0.99	Nov.	113.0	111	137	75	149	nw.
Hyde Park	Lamoille	576	5	.....	95	July 30*	-43	Dec. 31	5	44.65	7.59	June	1.10	Feb.	115.5	159	153	89	122	nw.
Northfield	Washington	876	31	38.1	95	Aug. 1	-41	Dec. 30	31	32.14	5.82	Oct.	0.74	Feb.	86.4	148	54	118	193	w.
Rutland	Rutland	562	1	41.6	94	July 30	-27	Dec. 30	1	27.46	5.79	Oct.	0.42	Nov.	44.5	128	142	94	129	nw.
Somerset	Windham	2,096	6	.....	94	Aug. 1	-43	Dec. 30	6	.....	8.26	Oct.	0.91	Nov.	.....	167	128	95	142	n.
St. Johnsbury	Caledonia	711	24	40.8	97	July 30*	-25	Dec. 30	24	37.43	7.86	Aug.	1.04	Nov.	91.8	167	128	95	142	n.
Vernon	Windham	310	2	43.4	98	July 30*	-25	Dec. 30	1	29.59	5.07	Oct.	0.60	Nov.	55.0	96	155	91	119	nw.
Wells	Rutland	750	26	40.7	92	Aug. 1	-26	Dec. 30	26	31.63	6.15	Oct.	1.06	Sept.	41.5	112	97	134	134	s.
Woodstock	Windsor	700	25	41.7	98	Aug. 1	-35	Dec. 30*	25	31.18	5.69	June	0.89	Nov.	87.5	93	108	86	171	.....
Massachusetts.																				
Amherst	Hampshire	222	28	44.9	98	July 31*	-22	Dec. 30	28	43.52	7.06	Aug.	0.93	Nov.	58.0	111	180	98	87	nw.
Blue Hill	Norfolk	640	33	44.9	97	Aug. 1	-17	Dec. 30	33	48.78	8.58	Aug.	0.68	Nov.	78.3	154	126	84	155	w.
Boston	Suffolk	124	47	47.9	98	July 30*	-14	Dec. 30	47	38.94	7.06	Aug.	0.84	Nov.	53.2	127	135	99	131	sw.
Chestnut Hill	do	374	37	47.8	99	Aug. 1	-14	Dec. 30	45	43.62	7.50	Aug.	1.00	July	44.5	118	257	0	106	.....
Clinton	Worcester	120	21	45.2	95	Aug. 1	-19	Feb. 12	18	40.24	6.46	Aug.	1.12	Sept.	58.0	111	137	75	149	s.
Concord	Middlesex	139	27	44.4	98	Aug. 1	-17	Feb. 13	27	36.28	5.26	Oct.	0.99	Nov.	54.5	125	124	100	141	sw.
Fall River	Bristol	200	51	47.2	95	July 31	-11	Dec. 30	51	41.10	5.69	Oct.	0.45	Nov.	54.6	143	97	197	71	nw.
Fitchburg	Worcester	139	27	44.4	98	Aug. 1	-17	Feb. 13	27	36.28	5.26	Oct.	0.99	Nov.	54.5	125	124	100	141	sw.
Framingham	Middlesex	550	34	45.0	99	Aug. 1	-16	Dec. 30	34	30.39	4.78	June	0.72	Sept.	69.5	117	173	64	128	nw.
Lawrence	Essex	160	37	47.0	100	Aug. 1	-14	Dec. 30	38	40.78	6.11	Aug.	1.15	July	47.4	120	124	111	181	w.
Lowell	Middlesex	51	33	45.4	98	July 30*	-17	Dec. 30	33	37.26	5.22	Oct.	1.02	Nov.	47.6	124	111	181	73	w.
Nantucket	Nantucket	100	32	46.3	98	July 31*	-20	Dec. 30	63	38.55	5.25	June	1.12	Nov.	47.6	124	111	181	73	w.
New Bedford	Bristol	47	31	46.9	90	July 31	6	Feb. 12	31	42.20	7.69	June	0.62	Nov.	40.1	112	140	101	122	sw.
Plymouth	Plymouth	88	105	.....	91	July 30	-11	Dec. 30	103	.....	6.68	May	0.57	Nov.	65.8	115	193	57	115	.....
Provincetown	Barnstable	50	32	44.3	91	July 30	-11	Dec. 30	27	45.78	6.68	May	0.57	Nov.	65.8	115	193	57	115	.....
Rockport	Essex	40	30	47.1	92	July 30	2	Feb. 3	31	39.75	7.72	June	0.45	Nov.	43.0	104	216	61	88	sw.
Rutland	Worcester	25	15	45.5	97	Aug. 1	-													



Monthly and annual precipitation for the year 1917, with departures from the normal.

	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Annual.		
Stations.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	Precipitation.	Departure.	
Maine.																											
Bar Harbor.....	5.48	+0.25	3.67	-0.70	4.96	-0.82	3.73	+0.56	4.70	+1.21	10.29	+7.52	3.56	+0.63	7.14	+4.14	2.50	-1.08	6.72	+2.65	2.16	-2.53	3.11	-1.53	58.02	+10.30	
Cornish.....	4.34	+0.51	5.02	-1.83	4.26	0.00	3.34	-0.20	3.02	-0.90	12.26	+8.59	1.48	-2.48	7.21	+3.00	1.18	-2.77	5.25	+1.35	1.17	-2.67	2.75	-0.37	51.28	+2.23	
Eastport.....	3.87	+0.03	2.79	-0.83	2.95	-1.33	3.22	+0.28	1.62	-2.18	7.40	+4.16	1.90	-1.52	4.24	+1.18	1.51	-1.46	4.01	+0.16	1.72	-2.36	2.99	-0.98	38.42	+4.85	
Farmington.....	3.89	+0.49	1.90	-1.25	4.21	-0.14	3.19	+0.60	2.85	-0.90	10.74	+7.32	2.55	-0.97	7.14	+3.45	1.69	-1.87	5.86	+2.65	1.12	-2.26	3.86	+0.54	49.00	+7.66	
Gardiner.....	4.24	+0.53	2.57	-0.87	4.79	+0.73	3.04	-0.35	2.22	-1.40	8.88	+5.75	6.97	+2.73	4.98	+1.18	1.80	-2.37	6.40	+3.04	1.26	-1.77	3.62	+0.83	49.94	+9.25	
Greenville.....	3.95	+1.10	1.90	-0.85	3.90	+0.14	3.25	+0.47	3.22	-0.25	8.69	+5.00	6.69	+2.73	4.98	+1.18	1.80	-2.37	6.40	+3.04	1.26	-1.77	3.62	+0.83	49.94	+9.25	
Houlton.....	2.35	-0.09	1.20	-0.92	2.14	-0.21	1.74	-0.26	1.90	-0.28	6.91	+3.62	3.69	+1.13	4.89	+2.08	1.97	-0.83	4.97	+2.13	0.90	-1.28	2.80	+0.43	35.46	+5.52	
Langtown.....	2.15	.....	1.70	.....	2.44	.....	2.56	.....	.....	.....	.....	.....	4.68	.....	6.04	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Lewiston.....	4.14	+0.12	2.07	-1.77	4.44	-0.15	3.34	-0.03	2.88	-0.54	11.16	+7.74	4.34	+0.79	4.45	+1.19	0.62	-2.85	6.71	+3.03	1.10	-2.08	4.21	+0.27	49.46	+5.72	
Madison.....	3.12	-0.48	1.51	-1.32	3.95	-0.35	3.03	-0.89	2.69	-1.20	9.96	+6.08	2.37	-1.70	5.46	+0.97	2.09	-2.09	5.10	+0.87	0.28	-1.94	3.08	-0.11	42.64	-2.16	
Millinocket.....	4.41	+0.85	2.40	-0.49	4.41	+0.78	3.00	-0.30	3.59	+0.51	9.89	+6.68	2.26	-1.64	6.70	+3.19	1.35	-2.64	6.78	+3.07	1.98	-1.50	3.74	+0.61	50.51	+11.40	
North Bridgton.....	3.46	+0.31	2.47	-0.93	3.81	-0.45	3.02	-0.32	3.75	+0.22	11.20	+7.77	4.28	+0.21	7.48	+4.22	0.52	-3.21	4.68	+1.41	0.99	-2.46	2.91	+0.44	48.97	+7.21	
Orono.....	4.11	+0.09	3.67	+0.05	3.22	-0.83	3.39	-0.52	3.18	-0.20	7.49	+4.15	4.05	+0.80	4.09	+0.76	1.08	-2.48	5.89	+1.87	1.55	-2.21	3.24	-0.28	43.96	+1.20	
Patten.....	2.40	-0.67	1.80	-0.80	3.60	+0.98	2.00	-0.69	5.20	+2.56	8.90	+4.65	3.60	-0.21	3.84	+0.15	0.00	-4.30	8.20	+4.09	1.20	-1.75	3.50	+1.22	44.24	+5.23	
Portland.....	4.53	+0.72	3.35	-0.30	4.53	+0.78	2.93	-0.18	3.19	-0.48	10.86	+7.50	1.92	-1.33	5.78	+1.21	0.32	-2.88	4.09	+0.43	0.82	-2.98	4.22	+0.54	45.54	+3.03	
Presque Isle.....	4.00	+1.58	2.20	+0.33	2.70	+0.47	2.40	-0.58	3.90	+0.46	7.67	+4.70	2.56	-2.05	6.32	+3.24	1.41	-0.77	6.13	+2.91	1.35	-1.10	1.70	-0.65	41.34	+8.54	
Rumford.....	3.36	+0.28	1.15	-2.02	3.35	-0.27	2.77	-0.32	2.85	-0.66	10.49	+7.20	1.94	-1.87	7.20	+3.88	1.33	-1.98	5.24	+2.14	1.06	-2.20	3.26	+0.42	43.91	+4.60	
Van Buren.....	3.39	+1.09	2.01	-0.39	2.93	+0.31	2.53	+0.57	2.18	-0.96	7.86	+3.90	2.74	-0.81	6.02	+2.60	1.70	-1.43	5.28	+1.79	1.81	+0.62	0.76	-1.92	39.21	+4.77	
Winslow.....	2.88	-0.24	1.61	-0.83	3.44	-0.42	2.09	-0.67	2.17	-0.94	8.23	+5.31	0.68	-2.87	5.23	+2.02	1.31	-1.91	5.14	+2.00	0.98	-2.02	2.37	-0.48	36.13	-1.05	
New Hampshire.																											
Alstead Center.....	2.80	0.00	1.40	-1.40	2.67	-0.83	1.92	-1.10	3.49	+0.21	8.19	+5.14	2.72	-1.56	4.00	-0.12	0.55	-3.04	6.55	+3.47	0.59	-2.46	2.42	-0.65	37.30	-2.34	
Berlin.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bethlehem.....	2.36	-0.03	1.31	-1.05	2.66	-0.44	2.43	-0.15	2.00	-1.32	7.02	+3.29	2.39	-1.35	5.02	+1.14	1.49	-2.30	5.60	+2.60	0.60	-2.06	2.15	-0.18	35.03	-1.85	
Concord.....	3.35	+0.01	1.50	-1.73	2.03	-1.37	1.63	-1.16	2.92	-0.32	8.30	+4.96	1.27	-2.52	2.73	+0.98	0.57	-2.64	3.54	+0.30	0.85	-2.54	2.32	-1.03	31.01	-7.11	
Durham.....	3.16	-0.28	1.81	-1.28	2.31	-1.15	1.45	-1.58	4.10	+1.22	7.52	+4.36	1.28	-1.74	4.23	+0.93	0.43	-3.24	7.09	+3.89	0.73	-2.29	2.37	-1.13	36.48	-2.29	
Franklin.....	3.73	+0.72	1.73	-1.08	3.16	-0.45	2.65	-0.55	3.21	+0.15	7.51	+4.02	2.92	-0.37	3.46	-0.38	0.87	-3.64	4.89	+1.82	1.03	-1.38	3.86	+0.38	39.02	-0.76	
Glencoff.....	2.69	.....	2.17	.....	5.19	+2.70	3.16	.....	3.69	.....	7.26	.....	2.77	.....	.....	.....	1.68	.....	6.81	.....	0.72	.....	2.15	.....	41.13	.....	
Grafton.....	2.15	-0.86	.....	.....	1.98	-1.38	2.08	-0.65	2.17	+0.15	.....	.....	.....	.....	3.65	+0.06	.....	.....	5.49	+2.35	0.55	-2.24	2.12	+0.52	30.79	-8.64	
Hanover.....	2.03	-0.72	1.11	-1.28	2.40	-0.21	2.02	-0.33	2.29	-1.00	6.67	+3.27	1.48	-2.00	3.76	+0.20	0.87	-2.20	5.49	+2.35	0.55	-2.24	2.12	+0.52	30.79	-8.64	
Keene.....	3.41	+0.76	2.28	-0.41	2.97	-0.65	1.63	-1.02	2.94	-0.06	7.39	+3.03	2.27	-0.97	3.88	+1.45	0.74	-2.72	5.62	+2.72	0.32	-2.12	3.40	+0.40	36.95	+0.41	
Nashua.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Newton.....	2.85	-0.48	1.89	-1.31	3.05	-0.76	2.83	-0.59	3.63	+0.31	5.87	+2.87	1.31	-2.03	3.94	+0.84	0.88	-2.49	6.32	+2.72	1.14	-2.67	2.69	-0.57	36.40	-4.16	
Plymouth.....	3.61	+0.46	1.42	-1.49	3.47	-0.17	2.37	-0.38	2.36	-0.86	7.27	+4.06	2.04	-1.60	3.38	-0.54	0.67	-3.04	5.60	+2.37	0.83	-2.27	1.94	-1.21	34.96	-4.6	
Vermont.																											
Bloomfield.....	2.94	+0.64	1.29	-0.53	2.86	+0.14	1.79	-0.99	1.62	-1.57	5.84	+2.06	3.38	-0.84	7.64	+3.93	2.24	-1.51	7.08	+4.31	0.45	-1.41	1.83	-0.29	38.96	+3.94	
Burlington.....	2.18	+0.35	1.60	+0.23	2.99	+1.16	2.42	+0.55	2.00	-0.83	2.69	+0.43	1.88	-1.90	3.52	-0.49	3.62	+0.27	5.76	+2.69	0.95	-1.63	1.10	-0.59	31.71	+0.14	
Cavendish.....	3.04	+0.67	2.16	-0.04	2.87	+1.12	2.80	+0.63	4.24	+1.11	4.56	+1.10	1.52	-2.10	2.08	-1.87	0.87	-3.35	5.37	+2.17	1.16	-0.93	4.57	+0.27	35.24	+0.64	
Chelsea.....	2.21	-0.48	0.94	-1.70	2.29	-0.81	.....	.....	2.23	-0.92	4.81	+1.66	2.52	-0.86	5.16	+1.56	1.51	-1.83	5.67	+3.08	0.76	-2.01	2.35	-0.21	.....	.....	
Cornwall.....	1.87	-0.34	1.03	-1.02	2.51	+0.43	1.95	-0.01	2.08	-0.69	3.72	+0.27	2.15	+1.54	3.56	-0.17	1.36	-1.15	6.60	+4.02	0.69	-1.71	1.42	-0.66	29.49	+0.51	
Enosburg Falls.....	2.33	-0.35	1.54	-1.18	1.13	-1.83	2.27	-0.24	2.38	-1.23	4.21	0.00	6.62	+1.39	4.44	+0.60	3.41	+0.05	7.09	+3.99	0.99	-2.23	1.51	-1.39	37.92	-2.42	
Hyde Park.....	2.85	.....	1.10	.....	2.12	.....	3.16	.....	2.00	.....	7.59	.....	6.45	.....	7.23	.....	2.10	.....	6.54	.....	1.38	.....	2.13	.....	44.65	.....	
Northfield.....	3.20	+0.71	0.74	-1.52	2.19	-0.60	2.05	+0.04	2.28	-0.52	5.40	+2.15	3.08	-0.62	3.13	-0.80	1.37	-1.39	5.82	+3.34	1.04	-1.56	1.84	-0.87	32.14	-1.64	
Rutland.....	2.29	.....	1.65	.....	1.50	.....	1.74	.....	1.70	.....	3.76	.....	2.17	.....	4.00	.....	1.12	.....	5.79	.....	0.42	.....	1.32	.....	27.46	.....	
Somerset.....	4.70	.....	3.54	.....	4.70	.....	2.05	.....	4.89	.....	4.57	.....	4.01	.....	6.83	.....	1.21	.....	8.26	.....	0.91	.....	.....	.....	.....	.....	
St. Johnsbury.....	2.84	+0.63	1.21	-0.89	2.13	-0.66	2.29	+0.04	1.82	-1.27	6.13	+2															



Monthly and annual mean temperatures for the Year 1917, with departures from the normal.

Stations.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Annual.	
	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.
Maine.																										
Bar Harbor	23.4	+1.8	19.6	-3.0	32.2	+1.0	41.3	-0.4	46.8	-5.2	57.8	-2.3	66.8	+1.2	65.1	+0.6	56.4	-2.2	47.3	-0.7	33.9	-5.0	19.9	-6.7	42.5	-1.7
Cornish	20.4	+0.4	17.5	-3.9	32.2	+2.9	42.0	-0.8	48.9	-5.7	63.0	-2.2	71.6	+2.6	69.6	+3.4	56.9	-1.9	46.9	-0.6	34.1	-1.0	16.5	-8.7	43.3	-1.7
Eastport	20.6	+0.5	17.6	-3.8	29.4	+0.5	38.1	-0.2	43.2	-9.5	51.5	-3.9	58.4	+1.4	60.2	+0.5	54.2	-1.0	46.2	-0.4	32.3	-4.5	17.8	-7.5	39.1	-1.2
Farmington	15.2	+0.1	13.7	-3.8	27.5	-2.7	39.7	-2.7	48.0	-6.1	62.0	-0.5	70.1	+2.7	67.4	+2.7	55.4	-2.7	44.7	-2.9	31.0	-2.1	10.6	-1.5	40.4	-1.1
Gardiner	19.4	+1.8	14.6	-5.3	30.3	0.0	41.0	-2.6	47.8	-7.5	61.5	-3.7	70.8	0.0	69.2	+1.8	56.4	-3.4	46.6	-2.6	33.6	-3.1	14.8	-2.8	42.2	-2.4
Greenville	12.4	.....	9.1	.....	25.0	.....	35.1	.....	43.2	.....	58.1	.....	66.4	.....	64.7	.....	53.4	.....	42.1	.....	27.2	.....	7.8	.....	37.0	.....
Houlton	12.0	.....	8.6	.....	26.3	.....	39.2	.....	45.0	.....	61.6	.....	69.4	.....	68.2	.....	53.6	.....	44.8	.....	28.4	.....	7.0	.....	38.7	.....
Langtown	12.6	.....	9.2	.....	25.0	.....	35.1	.....	46.7	.....	58.1	.....	66.4	.....	64.7	.....	53.4	.....	42.1	.....	27.2	.....	7.8	.....	37.0	.....
Lewiston	18.8	+0.6	13.5	-6.4	28.6	-0.2	39.1	-2.7	46.7	-2.9	60.6	-3.8	70.9	+1.4	68.4	+1.7	56.4	-2.8	46.2	-1.0	32.3	-3.4	13.6	-4.6	41.3	.....
Madison	13.9	.....	9.0	.....	26.4	.....	38.6	.....	45.7	.....	60.6	.....	71.0	.....	68.4	.....	55.4	.....	43.8	.....	29.8	.....	8.4	.....	39.3	.....
Millinocket	12.6	.....	11.2	.....	26.6	.....	38.6	.....	45.7	.....	60.6	.....	71.0	.....	68.4	.....	55.4	.....	43.8	.....	29.8	.....	8.4	.....	39.3	.....
North Bridgton	17.5	-0.9	15.6	-3.8	29.4	+0.5	39.4	-3.5	46.6	-8.3	61.8	-2.8	70.8	+1.3	69.3	+2.1	57.0	-2.8	46.4	-2.7	33.2	-3.8	14.2	-4.2	41.8	.....
Orono	20.2	+4.0	18.0	-1.2	30.2	+2.6	41.6	+1.1	48.0	-4.7	61.4	-0.9	70.0	+2.7	68.7	+3.2	53.0	-4.1	46.4	+0.2	33.4	-0.8	15.8	-0.4	42.2	-2.4
Patten	7.2	.....	6.0	.....	18.7	.....	37.4	.....	47.8	.....	60.9	.....	68.8	.....	65.6	.....	60.8	.....	46.8	.....	26.7	.....	6.1	.....	37.7	+0.1
Portland	22.4	+0.4	19.3	-4.5	32.1	+0.1	40.2	-2.8	47.3	-6.2	62.8	-4.4	68.8	+0.8	66.9	+0.7	56.4	-3.2	47.0	-2.1	34.6	-3.0	17.8	-4.2	42.6	.....
Presque Isle	7.4	.....	5.1	.....	22.0	.....	37.3	.....	43.3	.....	59.9	.....	68.0	.....	66.9	.....	53.0	.....	43.1	.....	24.6	.....	5.6	.....	36.4	-2.4
Rumford	16.4	-0.1	14.0	-4.2	28.6	+1.1	39.4	-2.0	47.2	-6.5	61.5	-2.1	70.7	+2.4	67.4	+1.7	55.4	-2.4	45.2	-1.5	31.5	-2.6	12.5	-4.0	40.8	.....
Van Buren	6.4	.....	5.4	.....	21.8	.....	37.6	.....	42.8	.....	59.3	.....	66.8	.....	66.0	.....	51.6	.....	41.6	.....	24.1	.....	5.7	.....	35.8	-1.7
Winslow	15.1	-2.7	14.9	-3.8	31.0	+1.1	41.2	0.0	48.6	-5.0	62.8	+0.1	72.0	+3.5	69.6	+3.9	56.6	.....	46.5	-1.2	32.8	-1.6	15.2	-2.6	.....	.....
New Hampshire.																										
Alstead Center	20.2	+1.2	17.0	-2.8	30.2	+0.9	39.9	-4.1	46.8	-11.1	63.4	-3.9	69.6	-2.1	69.5	+0.8	56.6	-3.2	45.3	-3.0	31.8	-3.2	12.2	-11.1	41.9	-3.5
Berlin	15.4	0.0	11.7	-5.7	26.3	-0.2	37.0	-3.5	43.0	-11.0	60.2	-3.3	67.2	+0.1	66.2	+2.0	53.5	-3.0	41.2	-5.0	27.4	-5.2	7.8	-12.8	38.1	-4.0
Bethlehem	21.4	+0.2	18.5	-5.1	31.8	+0.3	40.9	-2.9	47.6	-8.1	63.8	-0.6	71.4	+2.3	70.0	+3.4	56.1	-3.0	46.8	-1.9	33.8	-3.0	15.7	-10.7	43.2	-2.4
Concord	23.0	+0.3	21.0	-3.7	31.6	+0.1	41.4	-2.6	47.0	-7.8	61.5	+2.8	70.8	+0.9	69.0	+1.0	56.6	-3.9	47.0	-2.1	33.6	-5.4	17.3	-11.0	43.3	-2.0
Franklin	19.8	-0.8	19.0	0.0	31.2	+0.1	41.0	-2.2	48.3	-8.0	64.5	+1.2	71.1	+1.2	69.8	+4.2	57.6	-2.3	46.8	-1.0	33.8	-0.2	14.9	-8.7	43.2	-1.6
Glencoff	14.9	.....	12.2	.....	25.8	.....	35.6	.....	42.5	.....	60.0	.....	66.8	.....	65.7	.....	53.4	.....	41.4	.....	27.4	.....	9.7	.....	38.0	.....
Grafton	16.3	-0.5	15.5	-3.6	29.6	+2.2	39.8	-1.8	47.2	-8.2	63.2	-1.8	70.4	+1.2	70.4	+4.3	56.8	-1.0	45.2	-1.2	30.2	-3.4	9.9	-11.5	41.3	-2.2
Hanover	17.9	-1.0	15.5	-3.6	29.6	+2.2	39.8	-1.8	47.2	-8.2	63.2	-1.8	70.4	+1.2	70.4	+4.3	56.8	-1.0	45.2	-1.2	30.2	-3.4	9.9	-11.5	41.3	-2.2
Keene	21.0	+0.1	18.8	-3.8	31.8	+1.2	41.6	-2.5	48.0	-8.3	64.2	-0.7	70.3	+2.0	69.0	+2.8	55.6	-3.5	46.0	-1.6	32.6	-4.1	14.2	-11.4	42.8	-2.5
Nashua	22.6	-0.4	20.3	-4.0	31.6	-0.2	40.3	-4.1	46.7	-8.5	61.9	-2.6	70.4	+1.2	68.6	+1.6	54.5	-5.6	46.2	-2.2	33.8	-4.0	17.8	-9.9	42.9	-3.2
Newton	17.2	+0.8	15.6	-2.3	27.8	+0.9	39.1	-2.1	47.1	-6.5	63.2	-1.0	69.7	+2.1	67.8	+2.1	54.4	-3.0	44.3	-0.4	31.0	-1.7	13.4	-8.8	40.9	-1.7
Plymouth	17.2	+0.8	15.6	-2.3	27.8	+0.9	39.1	-2.1	47.1	-6.5	63.2	-1.0	69.7	+2.1	67.8	+2.1	54.4	-3.0	44.3	-0.4	31.0	-1.7	13.4	-8.8	40.9	-1.7
Vermont.																										
Bloomfield	14.0	.....	10.0	.....	24.6	.....	37.4	.....	44.3	.....	60.9	.....	67.4	.....	65.6	.....	53.6	.....	43.9	.....	28.6	.....	8.4	.....	38.2	.....
Burlington	16.0	-0.3	11.7	-6.2	28.5	+1.2	39.8	-0.9	47.0	-9.6	62.7	-1.1	70.9	+2.7	68.4	+2.3	56.7	-2.2	44.8	-2.1	30.0	-3.7	12.1	-10.4	40.7	-2.5
Cavendish	18.0	.....	15.7	.....	28.7	.....	39.3	.....	46.5	.....	63.2	.....	71.4	.....	70.0	.....	56.9	.....	46.8	.....	30.4	.....	8.4	.....	38.1	.....
Chelsea	15.6	-0.6	11.9	-6.9	26.8	+1.8	37.0	-3.5	43.0	-11.0	60.2	-3.3	67.2	+0.1	66.2	+2.0	53.5	-3.0	41.2	-5.0	27.4	-5.2	7.8	-12.8	38.1	-4.0
Cornwall	19.4	+0.1	14.7	-4.9	30.4	+1.3	42.0	-3.3	48.6	-8.4	65.2	-1.9	71.8	+0.9	70.5	+2.9	59.2	-1.7	46.4	-3.3	32.2	-3.9	14.0	-11.4	42.9	-2.8
Enosburg Falls	14.6	-1.5	11.4	-5.6	27.8	+0.4	38.8	-3.9	46.8	-8.8	61.8	-3.4	70.2	+2.6	67.1	+2.5	55.4	-2.6	44.0	-3.3	28.6	-5.9	9.6	-12.7	39.7	-3.5
Hyde Park	15.7	.....	10.8	.....	26.6	.....	38.2	.....	45.5	.....	62.2	.....	69.6	.....	67.4	.....	55.3	.....	43.1	.....	28.6	.....	8.4	.....	38.1	.....
Northfield	14.5	-0.6	11.9	-5.3	25.9	-0.3	37.5	-2.7	44.2	-9.3	60.9	-1.8	67.6	+1.2	64.9	+2.0	52.9	-1.7	42.3	-1.3	27.7	-4.3	7.2	-13.3	38.1	-3.1
Rutland	19.4	.....	15.8	.....	30.4	.....	41.3	.....	47.6	.....	63.3	.....	70.8	.....	68.5	.....	58.0	.....	44.3	.....	29.4	.....	9.9	.....	41.6	.....
Somerset	18.0	.....	13.0	.....	25.4	.....	35.8	.....	41.2	.....	58.4	.....	64.0	.....	63.4	.....	50.0	.....	40.4	.....	27.3	.....	8.4	.....	38.1	.....
St. Johnsbury	16.2	+1.3	13.6	-3.6	28.4	+1.9	39.7	-2.1	47.0	-8.1	64.7	+0.7	71.0	+2.9	69.1	+4.7	56.6	-0.8	44.9	-1.5	29.6	-3.7	8.8	-11.9	40.8	-1.7
Vernon	21.8	+0.8	17.6	-4.6	31.6	+1.1	42.0	-3.6	48.2	-9.6	65.0	-2.8	72.0	+0.7	71.8	+3.0	57.3	-3.4	46.6	-1.5	32.2	-4.9	14.6	-11.1	43.4	-2.9
Wells	18.6	+0.4	14.2	-4.7	27.8	+0.3	40.0	-1.8	45.5	-9.9	62.8	-2.9	69.5	+0.5	68.0	+1.6	56.6	-2.2	43.8	-4.2	29.4	-5.5	12.0	-11.8	40.7	-3.4
Woodstock	19.4	+4.0	16.9	-0.5	29.8	+2.1	40.9	-0.9	47.3	-7.6	63.5	-1.5	69.1	+0.8	67.6	+2.3	55.6	-1.1	45.2	-0.6	31.8	-2.0	13.0	-8.5	41.7	-1.1
Massachusetts.																										
Amherst	23.4	-0.2	20.0	-4.9	33.4	+0.7	43.6	-1.8	49.5	-7.5	66.2	0.0	72.5	+2.0	72.3	+4.1	58.4	-1.8	47.4	-1.6	34.6	-3.7	17.1	-10.2	44.9	-2.1
Blue Hill	26.4	+1.4	22.8	-2.8	33.8</																					



Monthly maximum temperatures for the year 1917, with dates.

Stations.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.
Maine.																								
Bar Harbor.....	47	14	49	27	52	25	62	23	76	20	80	13	88	26	86	1†	82	19	63	1	58	6	45	9
Cornish.....	50	30	53	27	60	26	70	22	81	20	88	22	95	26†	97	1†	85	19	71	3	68	6	47	3
Eastport.....	47	14	43	27	46	28	60	23	65	19	73	28	84	31	79	7	75	27	61	1	53	6	47	9
Farmington.....	42	14	42	27	53	31	69	22	77	31	85	22	94	26	95	2	82	19	66	6	61	6	39	3
Gardiner.....	46	14	49	27	52	31	70	22	75	20	85	27	93	31	92	1	82	19	67	4	63	6	39	3
Greenville.....	43	14	37	24†	52	26	62	22	73	31	82	13	90	26	90	2	81	27	61	30	50	18	33	23
Houlton.....	40	14†	34	21†	54	26	62	22	68	31	82	22	90	26	94	1	81	27	64	2	46	7	38	3
Langtown.....	42	14	40	27	59	26	62	22	73	20	84	27	94	26	92	1	82	19	65	3	64	6	36	5
Lewiston.....	45	14	44	27	50	31	65	22	73	20	84	27	94	26	93	1	82	19	65	3	64	19	36	5
Madison.....	46	11	44	28	53	27	67	23	72	20	83	23	96	27†	97	3	82	20	68	3	55	19	35	25
Millinocket.....	45	14	42	27	52	26	66	22	72	31	83	13	93	26	90	2	87	19†	64	19†	51	5	36	3
North Bridgton.....	48	14	48	8	54	31	69	22	75	20†	86	27	97	31	97	2	87	19	70	17	64	6	40	9
Orono.....	50	8	45	18†	65	12	66	22	74	20	84	28	91	26†	90	1	81	19†	68	1	58	6†	41	9
Patten.....	45	15	40	19	50	27†	60	24	75	18	90	13	94	23†	94	1	80	24	61	1	70†	1	40	3†
Portland.....	47	14	50	27	53	31	60	22	79	20	86	27	92	31	85	2	80	19	63	27	58	6†	43	9
Presque Isle.....	42	14	39	24	53	27	64	22	71	31	83	14	91	26	94	1	80	19	64	31	48	6†	34	21
Rumford.....	42	14	41	24†	51	26	63	22	73	31	82	27	93	6	93	1	80	19	68	19	55	18	36	1†
Van Buren.....	42	14	42	24	51	26	61	22	70	31	81	14†	91	26	90	1	80	19	63	30	45	5	34	2†
Winslow.....	47	14†	44	24	58	23	68	22†	78	20	85	27†	97	4	95	12†	80	19	65	19†	60	6	39	3
New Hampshire.																								
Alstead Center.....	46	14	44	27	52	26	62	19†	74	19†	82	20	91	30†	93	1	78	20	65	19†	56	18	38	25
Berlin.....	45	14	45	27	56	26	62	22	73	31	81	20	92	30	92	1†	77	2	64	19	52	18	42	24
Bethlehem.....	48	14	48	27	59	26	70	22	79	20	88	20	98	30	99	1	84	19	69	19†	65	18	41	25
Durham.....	50	14	49	27	56	26†	68	22	76	19†	87	22	93	30	98	2	85	19	70	19†	63	18	40	5
Franklin.....	45	14†	44	24†	59	26	70	22	79	20†	88	20	95	30	98	1	86	19	69	3	63	6	41	25
Glenciff.....	42	14	45	26	55	26	65	22	70	19	82	20	91	30	93	1	77	20†	62	3†	56	19	40	24
Grafton.....	44	14	44	26†	57	26	68	22	78	20	88	20	93	30	97	2	84	19	69	19	57	18	44	25
Hanover.....	46	14	46	27	58	26	68	22	78	31	87	20	98	30	98	1	84	19	68	3†	60	6†	39	25
Keene.....	48	14	48	27	60	26	70	19†	79	19†	86	20	95	30	96	1	83	19	71	19	64	18	42	25
Nashua.....	51	14	49	27	57	26	70	23	82	20	86	14	97	30	94	1†	82	19	71	19	64	18	42	25
Newton.....	51	14	49	27	57	26	70	23	82	20	86	14	97	30	94	1†	82	19	71	19	64	18	42	25
Plymouth.....	45	14	42	24	52	26	66	22	79	31	87	19	92	30†	91	2	79	19	65	3†	60	18	40	25
Vermont.																								
Bloomfield.....	43	14	42	27	55	26	64	22	77	31	83	13	90	23†	93	1	80	19†	66	20	53	8	44	21
Burlington.....	42	14	40	26	57	26	68	21	75	31	81	13	94	30	98	1	78	19	69	19	50	18	41	25
Cavendish.....	47	14	45	24	54	26	67	22	78	31	89	20	94	30	98	1	83	19	66	20	60	18	38	22
Chelsea.....	44	14	45	24	52	26	62	22	76	31	86	20	94	25†	95	1†	79	19	65	19†	58	18	41	25
Cornwall.....	44	14	40	24†	60	26	72	21	79	20	85	23	98	30	98	1	84	19	70	3†	60	1	41	21
Enosburg Falls.....	44	6†	40	19†	59	26	69	21	80	31	87	13	95	30	96	1	81	27	68	19	49	13	43	21
Hyde Park.....	43	14	43	26	57	26	65	19†	77	31	85	13	95	30	95	1	81	19†	69	19	50	18	44	25
Northfield.....	46	14	49	27	53	26	64	22	75	31	84	20	94	30	95	1	79	19	66	19	51	6	40	22
Rutland.....	46	14	48	17	63	26	77	22	76	19	88	20	94	30	92	25	82	20†	70	19	51	6	40	22
Somerset.....	44	14	44	26	51	26	71	21	72	31	82	20	93	31	94	1	74	26	62	3	54	14	40	21
St. Johnsbury.....	44	14	41	27	59	26	68	22	79	21	87	20	97	30	97	1	82	19	68	19†	61	14	40	21
Vernon.....	48	14	44	27	55	26	69	22	78	20	88	22	98	30†	98	1	84	19	68	2	60	6	38	22
Wells.....	44	14	40	26†	55	27	70	21	76	31	84	20	90	30†	92	1	78	2	66	19	50	18	36	21
Woodstock.....	48	14	47	27	53	26	70	23	76	20†	92	20	94	30	98	1	82	2	71	1	57	18	43	25
Massachusetts.																								
Amherst.....	48	14	49	27	58	25	71	19	81	19	88	22	98	31	98	1	85	19	70	27	62	6†	40	5
Blue Hill.....	51	14	48	26†	57	26	69	23	77	20	83	20	96	30	97	1	79	19	67	19	63	18	46	9
Boston.....	55	14	53	27	61	26	72	23	80	20	87	20	98	30†	98	1†	83	19	71	19†	65	18	48	9
Chestnut Hill.....	54	14	53	27	60	26	71	23	82	21	89	20	98	30	99	0	82	19	70	19	63	18	45	9
Clinton.....	51	14	50	18	57	26	69	22	77	20	83	20	94	30†	95	1	77	20	69	30	62	14†	44	5
Concord.....	52	15	48	27	59	27	70	22†	81	20	86	20	97	30	98	1	82	19	70	30	66	18	41	5
Fall River.....	52	14	49	27	55	27	70	23	80	20	80	22†	95	31	89	2	77	20	67	30	60	6	50	9
Fitchburg.....	51	14	47	27	59	26	70	22	80	20	87	20	97	31	99	1	85	19	70	30	63	18	42	9
Framingham.....	53	14	49	27	57	26†	70	23	80	20	88	20	98	30†	100	1	81	19	69	19†	64	6†	41	25
Lawrence.....	52	14	50	27	58	26	72	22	81	20	86	14†	98	30	98	1	83	19	68	30	61	6	41	24
Lowell.....	51	14	52	27	58	26	68	22†	79	20†	85	20†	98	31	98	1†	81	20	68	30	61	6	41	24
Nantucket.....	50	6	49	26	48	31	67	23	68	20	77	28	90	31	82	13	77	21	64	1	56	18	54	8
New Bedford.....	51	5†	50	27	52	27	69	23	76	20	80	27	92	30	90	2	74	20						



Monthly minimum temperatures for the Year 1917, with dates.

Stations.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.
Maine.																								
Bar Harbor.....	-6	20	-16	3	5	6	20	10†	26	1	35	1	48	8	50	19†	31	23	28	18	6	28	-21	30
Cornish.....	-15	20	-27	12	-9	7	21	10	30	16	41	1	50	6†	43	27	28	24	25	21†	-4	29	-36	30
Eastport.....	-8	20	-15	3	-5	7	18	10	29	1	39	1	45	23	48	16	36	23	32	18	6	28	-22	30
Farmington.....	-17	24	-18	3	-5	7	16	10	30	8†	40	1	47	6	41	27	27	24	25	23	-7	29	-36	30
Gardiner.....	-8	13	-22	12	-10	7	18	10	31	4	41	1	53	6†	46	27	30	24	27	18	-5	29	-27	30
Greenville.....	-16	20	-24	3	-5	3	11	10	27	5	37	7	48	5	44	27	27	23	27	18	-4	28	-30	30
Houlton.....	-22	21†	-25	3	-10	3	22	10	28	5†	35	7	49	29	40	22	28	24	24	18	-6	30	-30	30
Langtown.....	-23	20	-24	22	-10	20	9	10					44	7	36	31								
Lewiston.....	-6	13†	-26	11	-8	7	20	10	32	1†	44	1	54	9	48	27	31	12	30	18†	2	30	-27	30
Madison.....	-18	20†	-23	13	-8	20	3	11	32	2†	42	1	51	6	46	27	30	11†	26	18	-9	35	-34	31
Millinocket.....	-21	29	-20	3†	-11	2	17	10	23	1	37	7	48	6	41	27	27	23	26	27	-7	29	-35	31
North Bridgton.....	-18	20	-30	3	-2	7	17	10	28	8	38	1	49	6	46	27	29	24	27	29	-4	27†	-28	30
Orono.....	-10	20	-20	3	3	7	14	11	27	1	38	1	49	6†	47	27†	29	23	26	23	-1	30	-29	30
Patten.....	-23	27	-22	2	-15	19	10	2	21	3†	35	1†	44	6†	43	23	28	12	24	8†	-10	29	-30	29
Portland.....	-2	20	-13	3	-8	20	21	10	32	6	45	11	54	12	52	27	36	24	33	12	10	27	-21	30
Presque Isle.....	-29	29	-25	12	-15	21	9	1	24	1†	33	7	44	6	37	22	28	8†	24	18†	-14	28	-35	30
Rumford.....	-14	24	-14	3	3	1	18	10	34	1†	42	1	51	6	47	27	32	23	30	18†	2	29†	-20	29†
Van Buren.....	-36	21	-25	13	-18	7	6	1	24	1†	41	7	43	5†	41	31	23	23	26	18	-20	28	-37	27
Winslow.....	-9	20†	-23	12	-5	7	16	10	24	8	40	1	50	6†	27	27	28	24†	24	18	-5	30	-25	30
New Hampshire.																								
Alstead Center.....	-9	12	-12	3†	4	20	18	10	28	6	48	12	50	1	48	27	32	11†	30	12†	2	27	-26	30
Berlin.....	-19	12	-23	3†	-5	20	13	10	25	16	44	25	47	5	45	27†	28	23	25	22	-3	26	-44	30†
Bethlehem.....	-6	13	-13	3	0	7	22	10	32	4	45	5	51	6	45	27	30	24	26	12	7	30	-17	30
Concord.....	-2	12	-12	13	1	7	21	10	30	8	41	11	49	29	44	27	25	24	27	12†	5	29†	-26	30
Durham.....	-10	24	-15	3	0	7	20	10	30†	3	43	5	48	6	43	27	28	11	26	23	5	30	-28	31
Franklin.....	-13	12	-20	3	-2	19	12	10	27	16	44	1	49	5	45	27†	27	23	26	31	-3	27	-28	31
Glencoff.....	-17	13	-18	3	-7	7	19	10	25	16	38	5	43	6	37	27								
Grafton.....	-13	20	-25	12†	-6	7	19	10	31	3†	44	5	47	5†	43	27	28	32	23	23	2	27	-37	31
Hanover.....	-13	27	-22	13	-5	7	21	25	22	16	41	5	47	1†	40	27	26	11†	22	21	5	27	-27	31
Keene.....	-13	27	-22	13	-5	7	21	25	22	16	41	5	47	1†	40	27	26	11†	22	21	5	27	-27	31
Nashua.....	-7	23	-22	3	0	7	21	10†	28	4	45	12†	46	6	44	27	22	24	24	23	-4	30	-22	30
Newton.....	-17	24	-15	3†	-3	1	16	10	30	7†	4	1	47	4†	40	27	24	23	24	29	-3	30	-20	30
Plymouth.....	-7	24	-15	3†	-3	1	16	10	30	7†	4	1	47	4†	40	27	24	23	24	29	-3	30	-20	30
Vermont.																								
Bloomfield.....	-32	20	-39	13	-18	20	12	10	25	16	37	7	43	5	41	27	26	23	23	23	-7	27	-43	30
Burlington.....	-14	12	-18	12	1	7	17	10	32	16	46	17	50	5	47	31	31	23	28	23	1	27	-25	30
Cavendish.....	-15	13	-27	12	-12	2	20	10	24	16	40	5	5			30	25	19	17					
Chelsea.....	-20	13†	-31	12	-13	7			20	16	42	6†	42	1	29	27	22	23†	19	23	-9	27	-40	30
Cornwall.....	-13	12	-20	12†	3	7	18	10	30	16	40	1	48	4	48	31	31	23	28	21†	4	27	-23	30
Enosburg Falls.....	-29	12	-32	14	-8	7	14	10	23	16	40	25	46	6	45	31	28	23	23	23	-11	27	-32	30†
Hyde Park.....	-27	19	-32	13	-14	7	15	10	24	8	44	7	45	5	44	27	26	23	23	23	-10	27	-43	31
Northfield.....	-21	20	-27	13	-10	7	15	10	26	16	45	26	44	5	43	31	24	23	22	23	-6	27	-41	30†
Rutland.....	-15	12	-22	13	-1	7	18	10	29	16	44	18	46	5	42	27	28	23	23	23	7	27	-27	30
Somerset.....	-13	11	-17	12	-6	6	15	9	20	4	34	1	42	3†	38	26	21	10	21	31	-3	26		
St. Johnsbury.....	-23	20	-30	12†	-11	7	17	10	27	8	46	6†	48	5†	43	27	26	12	23	23	-3	27	-43	30
Vernon.....	-11	27	-24	13	-5	7	24	25	26	16	44	5	48	6	46	27	33	11	26	17†	6	29	-25	30
Wells.....	-15	12	-18	3†	-4	19†	17	10	25	16	44	4	50	5†	46	31	30	23	26	21	3	27	-26	30
Woodstock.....	-17	27	-28	12	-7	7	16	10	24	16	41	27	44	6	38	27	23	23	21	23	-2	27	-35	30†
Massachusetts.																								
Amherst.....	-4	27	-16	13	-2	7	25	15	28	4	50	5†	52	6	46	27	30	11†	27	21	9	29	-22	39
Blue Hill.....	-1	12	-6	13	14	6†	22	9	32	5†	45	1	49	10	53	26	37	11	32	21	7	27	-17	30
Boston.....	5	12	-3	3	17	5	26	10	36	6	50	11	56	10	58	26	40	24	37	12	13	27	-14	30
Chestnut Hill.....	1	12	-6	13	9	7	24	9†	33	16	46	1	53	10	54	5†	33	24	29	12	11	27†	-14	30
Clinton.....	-4	27	-19	12	3	7	23	10	33	4†	47	12	54	10	50	27	30	24	30	21	10	27	-16	30
Concord.....	-3	27	-17	13	2	7	24	9†	29	4†	46	1	50	6	44	27	26	24	26	12†	5	29	-16	30
Fall River.....	3	12	-1	13	17	20	25	9	34	4†	50	1	54	10	57	26	38	24	33	21	12	27	-11	30
Fitchburg.....	-3	12	-13	12	12	20	22	10	32	4	47	11†	53	6	51	27	31	24	28	21	8	28	-16	30
Framingham.....	0	27	-6	11†	7	7	23	9	34	4†	44	1	53	10	48	27	33	11	29	12†	11	27†	-14	30
Lawrence.....	-1	24	-13	3	1	7	23	10	32	4	47	11†	53	10	49	27	32	24	30	12	9	27†	-17	30
Lowell.....	-7	23	-13	12	-1	7	24	9†	32	4	47	12	54	6†	50	27	28	24	29	21	4	29	-20	30
Nantucket.....	8	12	6	12	21	20	25	9	34	1	44	1	54	12	55	16	46	24	40	12	18	27	8	30
New Bedford.....	4	11	0	13	19	7†	25	9†	37	4†	51	1	51	10	54	5†	36	11	30	12	10	27	-11	30
Plymouth.....	0	12†	-2	12†	14	6†	22																	



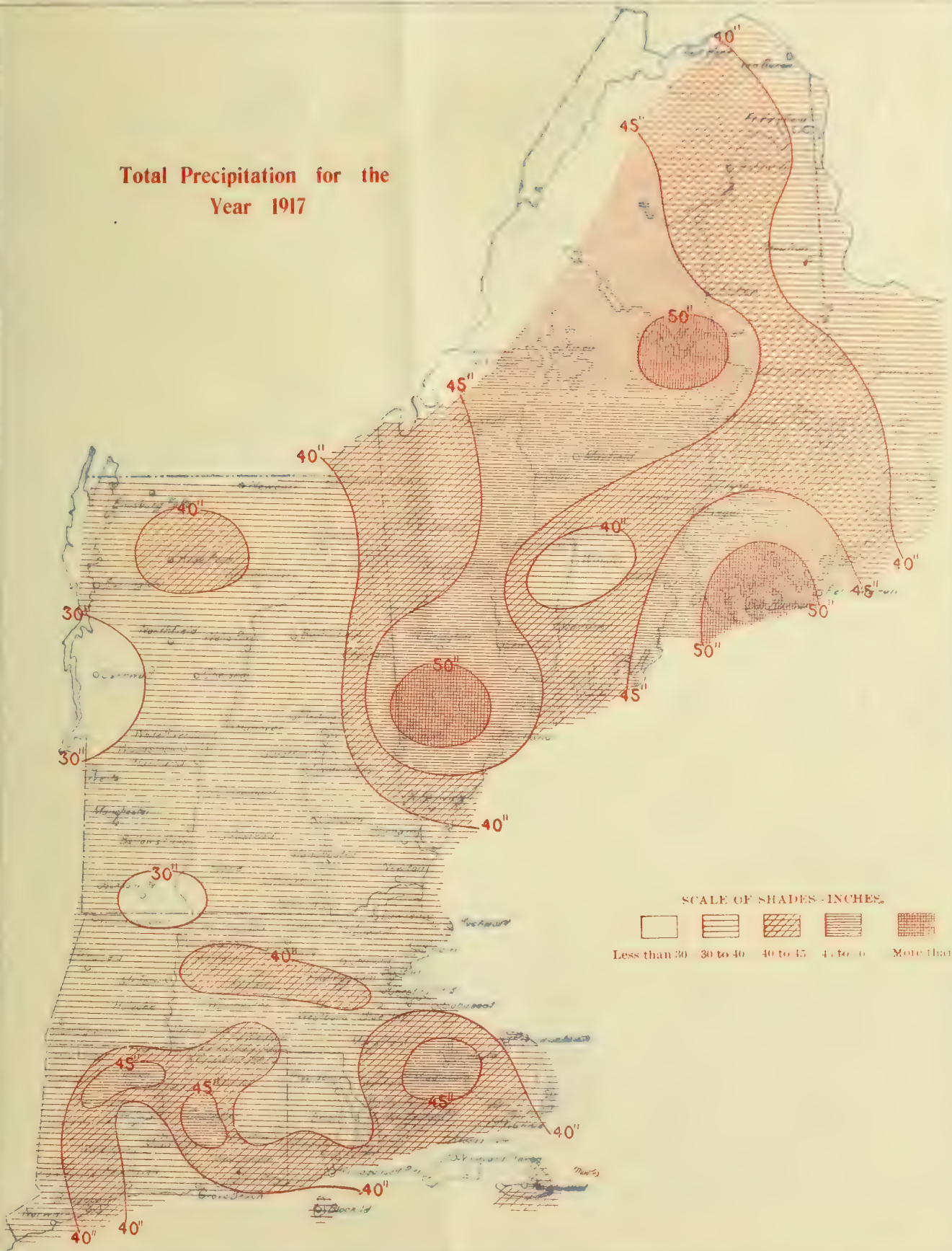
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- ⊙ Meteorological observations. (Regular Weather Bureau stations.)
- Meteorological observations. (Sub-stations.)
- △ Display or distribution of forecasts.

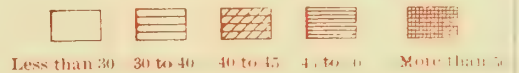
- ⊙ Meteorological observations. (Regular Weather Bureau stations.)
- Meteorological observations. (Sub-stations.)
- △ Display or distribution of forecasts.



# Total Precipitation for the Year 1917



SCALE OF SHADES - INCHES.





## COOPERATIVE OBSERVERS.

Station.	Observer.	Station.	Observer.	Station.	Observer.	Station.	Observer.
<b>MAINE.</b>		Glenciff.....	State Sanatorium.	Brockton.....	City Engineer.	<b>RHODE ISLAND.</b>	
Ashland.....	F. R. Coburn.	Grafton.....	P. R. Kimball.	Chestnut Hill.....	Met. Water Board.	Block Island.....	U.S. Weather Bureau
Bar Harbor.....	Mt. Desert Nurseries.	Hanover.....	Dartmouth College.	Clinton.....	Met. Water Board.	Bristol.....	N. G. Herreshoff.
Cornish.....	T. H. West.	Keene.....	Samuel Wadsworth.	Concord.....	F. A. Tower.	Greene.....	A. K. Greene.
Eastport.....	U.S. Weather Bureau	Newton.....	W. C. Gale.	Fall River.....	C. V. S. Remington.	Hope Valley.....	H. A. Spencer.
Eustis.....	F. L. Porter.	Plymouth.....	Mrs. Hattie G. Trow.	Fitchburg.....	Dr. A. P. Mason.	Kingston.....	Nathaniel Helme.
Farmington.....	W. G. Mallett.	<b>VERMONT.</b>		Framingham.....	Met. Water Board.	Narragansett Pier.	U.S. Weather Bureau
Gardiner.....	Samuel D. Soule.	Bloomfield.....	L. F. Power Co.	Haverhill.....	City Engineer.	Pawtucket.....	A. H. Keene.
Greenville.....	U.S. Weather Bureau	Burlington.....	U.S. Weather Bureau	Hingham.....	H. W. Cushing.	Providence (a).....	City Engineer.
Houlton.....	B. & A. RR.	Cavendish.....	Colonial Power Co.	Hobbs Brook.....	Cambridge W. Works.	Providence (b).....	U.S. Weather Bureau
Lewiston.....	Union Water Po'r Co.	Chelsea.....	W. F. Dewey.	Hyannis.....	Met. Water Board.	Wailum Lake.....	State Sanatorium.
Madison.....	Wm. Jardine.	Cornwall.....	C. H. Lane.	Lake Cochituate.....	Met. Water Board.	<b>CONNECTICUT.</b>	
Millinocket.....	Great N'ern Paper Co.	Enosburg Falls.....	J. W. Pomeroy.	Lawrence.....	Essex Co.	Bridgeport.....	Wm. Jennings.
North Bridgton.....	C. L. Chadbourne.	Hyde Park.....	A. V. Wiswell.	Leominster.....	Prop. Locks & Canals.	Canton.....	G. J. Case.
Orono.....	Maine State College.	Northfield.....	U.S. Weather Bureau	Nantucket.....	U.S. Weather Bureau	Chester.....	S. P. Willard.
Patten.....	B. & A. RR.	Norwich.....	C. W. Brown.	New Bedford.....	City Engineer.	Cream Hill.....	C. L. Gold.
Portland.....	U.S. Weather Bureau	Rutland.....	Geo. H. Ross.	Plymouth.....	Miss L. B. Knapp.	Danielson.....	F. E. Bitgood.
Presque Isle.....	E. M. Libby.	Somerset.....	Power Construc'n Co.	Princeton.....	Met. Water Board.	East Hartland.....	D. N. Gaines.
Rumford Falls.....	C. A. Mixer.	St. Johnsbury.....	Fairbanks Museum.	Provincetown.....	Gideon Bowley.	Falls Village.....	M. H. Dean.
Van Buren.....	Rev. J. M. Thomas.	Vernon.....	Conn. River Power Co.	Rockport.....	U. S. C. G. Station.	Hartford.....	U.S. Weather Bureau
Winslow.....	H. & W. Co.	Wells.....	E. R. Pember.	Roberts Dam.....	Cambridge W. Works.	Lake Konomoc.....	N. London W. Works.
Wypiciclock.....	Ed. Huff.	Woodstock.....	John S. Eaton.	Rutland.....	State Sanatorium.	New Haven.....	U.S. Weather Bureau
<b>NEW HAMPSHIRE.</b>		<b>MASSACHUSETTS.</b>		Spot Pond.....	Water Works.	New London.....	T. C. Dillon.
Alstead Center.....	Frank Dewing.	Amherst.....	Mass. Exp. Station.	Sterling.....	Met. Water Board.	N. Grosvenor Dale.	Grosvenor Dale Co.
Berlin.....	Brown Co.	Ashland.....	Met. Water Board.	Somerset.....	Elisha Slade.	Norwalk.....	G. C. Comstock.
Bethlehem.....	Benjamin Tucker.	Baker's Bridge.....	J. E. Baker.	Taunton.....	U. S. Army.	Southampton.....	L. Andrews.
Brookline.....	G. W. Bridges.	Bedford.....	C. W. Jenks.	Turners Falls.....	Turners Falls Co.	Storrs.....	Agr. Exper. Station.
Concord.....	U.S. Weather Bureau	Boston.....	U.S. Weather Bureau	Westboro.....	Miss E. W. Newcomb.	Torrington.....	Supt. of Schools.
Durham.....	N. H. Agr. College.	Blue Hill.....	Blue Hill Observatory	Williamstown.....	Williams College.	Voluntown.....	J. L. Herbert.
Franklin.....	Dr. C. P. Webster.	Boylston.....	Met. Water Board.	Winchendon.....	John Gregory.	Waterbury.....	N. J. Walton.

## DISPLAYMEN.

Station.	Displayman.	Station.	Displayman.	Station.	Displayman.	Station.	Displayman.
<b>MAINE.</b>		*Portsmouth.....	E. M. Fisher.	*Gloucester.....	R. E. Geary.	<b>RHODE ISLAND.</b>	
Augusta.....	Custodian U.S.P.O.	Sunapee.....	Emerson Paper Co.	*Highland Light.....	I. M. Small.	*Block Island.....	U.S. Weather Bureau
*Bangor.....	C. M. Stewart.	*Seaveys Island.....	U. S. N., Portsmouth.	Holyoke.....	O. C. Ferry.	*Narragansett Pier.....	U.S. Weather Bureau
*Booth Bay Harbor.....	C. H. McCobb.	*Wallis Sands.....	U. S. C. G. S.	*Hull.....	W. S. Richardson.	*Newport.....	Naval Torpedo Sta'n.
*Eastport.....	U.S. Weather Bureau	<b>VERMONT.</b>		*Hyannis.....	S. C. Fuller.	*Point Judith.....	U.S. L. S. S.
Farmington.....	W. G. Mallett.	Burlington.....	U.S. Weather Bureau	*Marblehead.....	Girdler Stacey.	*Providence.....	U.S. Weather Bureau
*Isle of Shoals.....	U. S. C. G. S.	Northfield.....	U.S. Weather Bureau	*Monomoy.....	U. S. C. G. S.	*Providence.....	R. I. Yacht Club.
Lewiston.....	Union Water Po'r Co.	<b>MASSACHUSETTS.</b>		*Nantucket.....	U. S. C. G. S.	Providence.....	Hose Co. 20.
*Machiasport.....	W. C. Hanson.	Amherst.....	Mass. Exp. Station.	*Nantucket S. S. Light-ship.....	U. S. N., Nantucket.	*Saunderstown.....	J. L. Eaton.
*Marshall Point L't.....	A. P. Skinner.	*Boston.....	U.S. Weather Bureau	*New Bedford.....	Wm. A. Coe.	*Southeast Light.....	M. A. Clark.
*Portland.....	U.S. Weather Bureau	*Chatham.....	W. L. Nickerson.	*Newburyport.....	H. A. Besse.	<b>CONNECTICUT.</b>	
*Vinalhaven.....	Libby Fish Co.	*Cuttyhunk.....	U. S. C. G. S.	*Nobska Light.....	Nobska Light Sta'n.	*Bridgeport.....	T. J. Keegan.
*White Head Isl'd.....	Ida E. Shea.	*East Chop.....	East Chop Light Sta.	*North Plymouth.....	Plymouth Cordage Co.	*Greenwich.....	Yacht Club.
<b>NEW HAMPSHIRE.</b>		*Fall River.....	Wm. Durfee.	*Pocasset.....	Wings Neck Light Sta.	*New Haven.....	U.S. Weather Bureau
Claremont.....	C. H. Weed & Co.	<b>MASSACHUSETTS.</b>		*Provincetown.....	M. A. Bowley.	*New Haven Light.....	Albert Widman.
Durham.....	N. H. State College.	Amherst.....	Mass. Exp. Station.	*Race Point.....	U. S. C. G. S.	*New London.....	T. C. Dillon.
		*Boston.....	U.S. Weather Bureau	*Rockport.....	U. S. C. G. S.	Torrington.....	Supt. of Schools.
		*Chatham.....	W. L. Nickerson.	*Sandwich.....	C. C. Canal Co.	*Saybrook Point.....	A. H. Barber.
		*Cuttyhunk.....	U. S. C. G. S.	*Tarpaulin Cove.....	Jesse Donald.	*Stonington.....	Stonington L't Sta'n.
		*East Chop.....	East Chop Light Sta.	*Wellfleet.....	J. E. Crowell.	*Fisher's Is'd, N.Y.	Fort H. G. Wright.
		*Fall River.....	Wm. Durfee.				

Note.—Wireless stations at Boston Navy-yard, Highland Light, Newport Torpedo Station, also repeat to vessels in addition to the wireless stations displaying warnings.  
 \* Stations displaying storm warnings. † Government wireless stations.

## FORECAST DISTRIBUTING CENTERS.

Station.	Distributor.	Station.	Distributor.	Station.	Distributor.	Station.	Distributor.
<b>MAINE.</b>		North Conway-50.	Postmaster.	White River J'ct-96.	Postmaster.	<b>RHODE ISLAND.</b>	
Auburn-23.....	Do.	Peterboro.....	Do.	Wilmington-92.....	Do.	Block Island-46...	U.S. Weather Bureau
Augusta-120.....	Do.	Tilton-5.....	Do.	<b>MASSACHUSETTS.</b>		Narragansett Pier	Do.
Eastport-204-47...	U.S. Weather Bureau	Tilton-200.....	Citizens Tele. Co.	Boston-3300-2200	U.S. Weather Bureau	Providence-777....	Do.
Farmington-800....	Maine Tel. & Tel. Co.	<b>VERMONT.</b>		Fall River-182....	Postmaster.	<b>CONNECTICUT.</b>	
Houlton-27.....	Postmaster.	Brattleboro-337...	Postmaster.	Gardner-61.....	Do.	Hartford-1000-150	U.S. Weather Bureau
Houlton-2400.....	Aroostook Co. Tele. Co.	Enosburg Falls-200	U.S. Weather Bureau	Greenfield-59.....	Do.	New Haven-1050	U.S. Weather Bureau
Portland-800 1404-120	U.S. Weather Bureau	Ludlow-130.....	Northern Tele. Co.	Holyoke-67.....	Do.	*540	
<b>NEW HAMPSHIRE.</b>		Northfield-130 1265	U.S. Weather Bureau	Nantucket-27.....	U.S. Weather Bureau	Norwich-96.....	Postmaster.
Concord-300-1200...	U.S. Weather Bureau	Readsboro-100....	Ludlow Tele. Co.	Pittsfield-130....	Postmaster.	Sharon-400.....	Sharon Tele. Co.
Henniker-177.....	Henniker Tele. Co.	Springfield-175...	Postmaster.	Shelburne Falls-1659	Heath Tele. Co.	Torrington-8.....	Postmaster.
Laconia-19.....	Do.	<b>MASSACHUSETTS.</b>		Vineyard Haven-6	Martha's Vineyard	Wash'n Depot-50.	Do.
Manchester-212....	Do.	St. Albans-50.....	Postmaster.	Worcester-188....	Tele. Co.	Winsted-21.....	Do.
Meredith-375....	Winnepesaukee Tele-phone Co.	St. Johnsbury-119.	Do.				

Figures indicate number of forecast cards mailed daily from distributing center.

\* Number of Weather Maps mailed daily.

† Rural Free Delivery slips.



U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU

CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

JANUARY, 1918

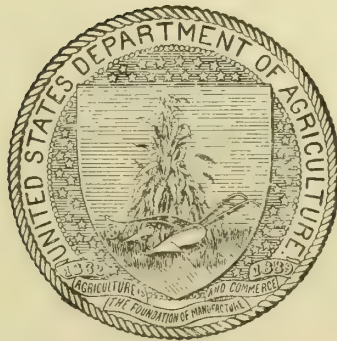
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BY

JOHN W. SMITH

METEOROLOGIST

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
FEBRUARY 19, 1918



Departure of the Mean Temperature from the Normal, January, 1918.



Shaded portions show excess (+).  
Unshaded portions show deficiency (-).  
Lines show amount of excess or deficiency.



## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

VOL. XXX.

BOSTON, MASS., JANUARY, 1918.

No. 1.

## GENERAL SUMMARY.

Extremely cold weather prevailed through the month, with more than an average snowfall, although the total precipitation was somewhat below the normal. The average temperature for the section,  $13.2^{\circ}$ , was the lowest for any January, and also for any month in the record of the section, beginning in 1888. The previous lowest January average temperature, which was also the previous lowest for any month of record, was  $15.0^{\circ}$ , in 1904. In a record extending back to 1836, at Amherst, Mass., the average temperature of the present month was lower than that of any month heretofore. The greater portion of the precipitation was as snow, which, in the interior of the northern portion of the section, accumulated to between 3 and 5 feet in depth. In the southeastern coast sections the snowfall was light, and during a portion of the month the ground was bare.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 13 stations reporting, was 29.84 inches, which was 0.22 inch below the normal for the month, and 0.15 inch below the mean for January, 1917. The highest monthly mean was 29.88 inches, at Burlington, Vt. and Amherst, Mass.; the lowest, 29.73 inches, at Eastport, Me. The highest recorded was 30.62 inches, at Burlington, Vt. on the 28th; the lowest, 28.58 inches, at the same station on the 15th. The monthly range for the section was 2.04 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 70 stations, was  $13.2^{\circ}$ , which was  $8.7^{\circ}$  below the mean for January, 1917, and the lowest for any January in the record of the section averages beginning in 1888. The previous lowest average January temperature was  $15.0^{\circ}$ , in 1904; the highest average January temperature in this period was  $32.1^{\circ}$ , in 1913. The average temperature for the several States of the section was as follows: Maine,  $9.6^{\circ}$ ; New Hampshire,  $9.6^{\circ}$ ; Vermont,  $7.1^{\circ}$ ; Massachusetts,  $18.0^{\circ}$ ; Rhode Island,  $19.6^{\circ}$ ; Connecticut,  $17.8^{\circ}$ . The average temperature for the section was  $7.9^{\circ}$  below the normal for the month. The departures from the normal for the several States were as follows: Maine,  $-6.8^{\circ}$ ; New Hampshire,  $-8.6^{\circ}$ ; Vermont,  $-9.1^{\circ}$ ; Massachusetts,  $-7.5^{\circ}$ ; Rhode Island,  $-8.6^{\circ}$ ; Connecticut,  $-8.3^{\circ}$ . The highest monthly mean was  $24.0^{\circ}$ , at Nantucket, Mass.; the lowest,  $-0.1^{\circ}$ , at Chelsea, Vt. The highest recorded was  $54^{\circ}$ , at Boston, Mass. on the 12th; the lowest,  $-44^{\circ}$ , at Pittsburg, N. H. on the 28th. The greatest monthly range was  $81^{\circ}$ , at Enosburg Falls, Vt.; the least,  $44^{\circ}$ , at Nantucket, Mass. The greatest daily range was  $63^{\circ}$ , at Pittsburg, N. H. on the 28th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 13 stations reporting, was 75 per cent, which was the same as the average for January, 1917, and normal for the month. The highest monthly average was 86 per cent, at Burlington and Northfield, Vt.; the lowest, 66 per cent, at Blue Hill Observatory, Hyde Park, Mass.

## PRECIPITATION.

The average for the section, as determined from the records of 71 stations, was 2.89 inches, which was 0.29 inch below the average for January, 1917. During the past 30 years the average January precipitation has been greater in 22 and less in 8 years than that of the present month. The greatest average January precipitation during this time was 6.83 inches, in 1891;

the least, 1.63 inches, in 1916. The average precipitation for the several States of the section was as follows: Maine, 2.86 inches; New Hampshire, 2.31; Vermont, 2.12; Massachusetts, 3.26; Rhode Island, 3.20; Connecticut, 3.60. The average for the section was 0.52 inch below the normal for the month. The departures from the normal for the several States were as follows: Maine,  $-0.64$  inch; New Hampshire,  $-0.63$ ; Vermont,  $-0.42$ ; Massachusetts,  $-0.38$ ; Rhode Island,  $-1.21$ ; Connecticut,  $-0.26$ . The greatest monthly amount was 4.81 inches, at New London, Conn.; the least, 1.38 inches, at Pittsburg, N. H. The greatest amount in 24 hours was 2.12 inches, at Torrington, Conn. on the 12th. The average snowfall for the section was 20.0 inches, which was 3.4 inches above the average for January, 1917, and 5.5 inches above the normal for the month, as determined from the records of the past 30 years. The greatest average snowfall in any January during this time was 29.0 inches, in 1904; the least, 4.6 inches, in 1913. The average snowfall for the several States was as follows: Maine, 25.1 inches; New Hampshire, 22.1; Vermont, 26.9; Massachusetts, 16.1; Rhode Island, 9.0; Connecticut, 14.1. The average number of days with .01 inch or more of precipitation was 10, which was 2 less than the average for January, 1917, and 1 less than the normal for the month.

## WIND.

The prevailing direction of the wind was from the northwest, which is the normal direction for the month, as determined from the records of the past 30 years. The greatest monthly wind movement at any station was 17,786 miles, at Block Island, R. I.; the least, 4,577 miles, at Concord, N. H. The average hourly wind movement was 12.3 miles, which was 0.3 mile above the average for January, 1917, and 0.4 mile above the normal for the month. The highest recorded velocity was 79 miles per hour from the south, at Blue Hill Observatory, Hyde Park, Mass. on the 12th. This is greater than the usual maximum velocity in January.

## SUNSHINE AND CLOUDINESS.

The average number of clear days was 13; partly cloudy, 8; cloudy, 10, which compares with the normal for the month of 10 clear, 8 partly cloudy, and 13 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 49, which was 10 per cent above the average for January, 1917, and 5 per cent above the normal for the month, as determined from the records of the past 25 years. The greatest percentage of possible sunshine at any station was 59, at Amherst, Mass.; the least, 22, at Northfield, Vt. The greatest percentage of possible sunshine in any January during the past 26 years was 58, in 1899; the least, 34, in 1909.

## DATES OF MISCELLANEOUS PHENOMENA.

*Parhelia*.—Bethlehem, N. H., 17, 22.  
*Auroras*.—Eastport, Me. and Northfield, Vt., 29, 30; Alstead Center, Bethlehem, Brookline, Newton, Plymouth, N. H., 30.  
*Thunderstorms* (dates and number of observers reporting on each): Massachusetts—7th, 3; 12th, 7; Rhode Island—12th, 2; Connecticut—12th, 5.  
*Halos, Lunar*.—Eastport, Me., 24; North Bridgton, Me., 1, 26; Berlin and Concord, N. H., 22; Franklin, N. H., Boston, Mass., 26, 27; Northfield, Vt., Block Island, R. I., 26; Woodstock, Vt., 27; Blue Hill, Mass., 1, 21, 22, 27, 28, 30; Leominster, Mass., 30; Somerset, Mass., 24, 26; Hartford, Conn., 21, 27; New Haven, Conn., 1, 21.  
*Halos, Solar*.—Eastport, Me., 14, 17, 21, 28; North Bridgton, Me., 30; Berlin, N. H., 27; Northfield, Vt., 3, 22, 30; Woodstock, Vt., 1, 28, 30; Blue Hill, Mass., 2, 11, 13, 14, 24, 26, 30; Boston, Mass., 2, 13, 24, 26, 30; Block Island, R. I., 14, 29; Hartford, Conn., 11, 13, 26, 30; New Haven, Conn., 2, 11, 13, 14, 24, 25, 26, 30; Waterbury, Conn., 14.



## Climatological Data for January, 1918.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.					Precipitation, in inches.				No. of days.				Observer.			
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (melted).	With precipitation 0.01 or more.	Clear.		Partly Cloudy.	Cloudy.	Prevailing direction of wind.
Maine.																				
Bar Harbor	Hancock	20	31	15.8	-5.8	41	13	-11	28	32	4.61	-0.62	1.00	21.0	12	20	3	8	nw.	Mount Desert Nurseries.
Cornish	York	778	62	12.8	-7.2	41	6	-30	2	45	2.72	-1.11	1.00	25.5	9	14	7	10	w.	T. H. West.
Eastport	Washington	53	45	15.4	-4.7	42	12	-11	28	32	2.88	-0.96	1.00	22.0	14	6	14	11	w.	U. S. Weather Bureau.
Farmington	Franklin	450	20	8.2	-6.9	34	8	-28	3	35	2.56	-0.84	1.08	25.0	9	15	6	10	nw.	State Normal School.
Gardiner	Kennebec	163	25	10.2	-7.4	42	12	-32	25	44	2.06	-1.65	0.72	28.0	10	18	2	11	n.	Samuel D. Soule.
Greenville	Piscataquis	1,140	13	6.4		34	13	-25	3	36	2.49	-0.36	0.75	25.0	12	11	6	14	nw.	U. S. Weather Bureau.
Houlton	Aroostook	362	15	9.4		37	7	-34	3	38	2.40	-0.04	0.50	24.0	7	15	7	9	w.	Bangor & Aroostook RR.
Lewiston	Androscoggin	185	34	11.0	-7.2	40	12	-18	28	32	3.18	-0.84	1.13	25.8	13	12	7	9	nw.	Union Water Power Co.
Madison	Somerset	257	14	6.6		34	9	-36	3	40	2.65	-0.95	1.20	25.2	11	18	1	9	nw.	William Jardine.
Millinocket	Penobscot	386	14	7.8		37	13	-34	3	39	3.10	-0.46	1.06	26.0	11	19	2	10	w.	Great Northern Paper Co.
North Bridgton	Cumberland	450	24	10.6	-7.8	37	8	-27	3	35	3.55	0.0	1.37	29.0	8	17	3	11	n.	C. L. Chadbourne.
Orono	Penobscot	129	48	11.0	-5.2	39	13	-22	2	42	3.55	-0.47	0.70	35.5	12	18	4	9	nw.	Maine State College.
Patten	do	550	15	2.6		40	19	-35	2	50	2.10	-0.97	0.60	21.0	4	5	20	1	nw.	Bangor & Aroostook RR.
Portland	Cumberland	99	46	15.0	-7.0	42	12	-9	2	27	3.48	-0.33	2.07	16.7	11	14	5	12	nw.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	8	2.6		34	7	-34	3	41	2.40	-0.02	0.60	33.0	8	15	6	10	w.	E. M. Libby.
Rumford	Oxford	505	24	10.0	-6.5	34	8	-24	3	30	2.77	-0.31	0.96	28.0	10	18	4	9	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	13	2.7		37	7	-40	3	43	2.75	+0.45	0.94	23.8	9	11	7	13	nw.	Rev. J. M. Thomas.
Winslow	Kennebec	90	22	8.5	-9.3	39	13	-27	21	42	1.78	-1.34	0.98	25.5	10	16	6	9	nw.	Hollingsworth & Whitney
New Hampshire.																				
Alstead Center	Cheshire	1,120	13	9.7	-9.3	39	12	-14	11	34	2.43	-0.37	0.95	37.0	8	22	0	9	nw.	Frank Dewing.
Berlin	Cook	1,090	20	5.6		32	12	-35	21	52	3.09	-0.07	1.05	27.0	12	7	11	13	n.	Brown Company.
Bethlehem	Grafton	1,470	25	6.6	-8.8	45	12	-20	11	36	1.83	-0.56	0.50	18.0	9	10	9	12	w.	Benjamin Tucker.
Concord	Merrimack	350	57	13.3	-7.9	47	12	-14	3	33	1.65	-1.69	0.65	17.3	10	18	5	8	nw.	U. S. Weather Bureau.
Durham	Stafford	88	22	14.8	-7.9	50	12	-15	2	35	2.05	-1.39	0.75	9.6	3	11	8	12	w.	N. H. Agr. College.
Franklin	Merrimack	440	18	11.2	-9.4	41	12	-23	3	39	3.14	+0.13	1.20	20.2	9	10	8	13	nw.	Gilbert Hodges.
Glencoff	Grafton	1,650	4	7.6		37	13	-25	1	41	2.61		0.80	26.3	10	15	11	5	nw.	State Sanatorium.
Grafton	do	863	31																n.	P. R. Kimball.
Hanover	do	603	83	8.0	-8.9	38	12	-32	3	36	2.21	-0.54	0.76	19.9	10	4	14	13	n.	Dartmouth College.
Keenes	Cheshire	506	32	10.8	-10.1	46	12	-28	2	39	2.78	+0.13	1.07	21.0	9	14	6	11	nw.	Samuel Wadsworth.
Newton	Rockingham	126	29	14.4	-8.6	49	12	-14	2	33	2.58	-0.75	0.89	13.0	8	13	9	9	nw.	W. C. Gale.
Pittsburg	Cook	1575		3.6		30	14	-44	28	54	1.38		0.50	33.7	11	10	9	12	w.	Conn. Valley Lumber Co.
Plymouth	Grafton	500	29	9.7	-6.7	34	12	-30	3	35	1.95	-1.20	0.60	19.3	7	16	1	14	w.	Mrs. Hattie G. Trow.
Vermont.																				
Bloomfield	Essex		10	7.4		41	13	-39	2	50	1.52	-0.78	0.38	25.4	15	12	13	6	w.	Lyman Falls Power Co.
Burlington	Chittenden	404	10	9.0		39	12	-24	28	34	1.73		0.84	19.4	12	13	13	15	s.	U. S. Weather Bureau.
Cavendish	Windsor	910	14	6.0		37	12	-35	21	40	3.44		1.29	23.2	10	16	10	5	n.	Colonial Power Co.
Chelsea	Orange	840	22	-0.1	-15.1	38	12	-35	2	40	1.70	-0.99	0.60	27.0	7	13	6	12	n.	W. F. Dewey.
Cornwall	Addison	517	24	10.9	-8.4	40	12	-12	28	34	1.57	-0.64	0.70	31.0	11	14	7	10	n.	C. H. Lane.
Enosburg Falls	Franklin	601	26	7.3	-8.8	41	12	-40	28	46	2.02	-0.66	0.33	49.0	16	12	6	13	w.	J. W. Pomeroy.
Hyde Park	Lamoille	576	5								2.47		0.75	45.0					s.	A. V. Wiswell.
Northfield	Washington	876	31	6.2	-8.9	37	12	-33	2	37	1.85	-0.64	0.82	21.5	9	4	6	21	s.	U. S. Weather Bureau.
Rutland	Rutland	562	1	6.4		31	12	-25	28	32	2.07		0.81	18.8	11	14	9	8	nw.	George H. Ross.
Somerset	Windham	2,096	6																n.	Power Construction Co.
St. Johnsbury	Caledonia	711	24	7.6	-7.3	37	12	-35	2	36	2.46	+0.25	0.65	19.0	15	13	9	9	n.	Fairbanks Museum.
Vernon	Windham	310	2																sw.	Conn. River Power Co.
Wells	Rutland	750	26	8.8	-9.4	36	12	-20	28	34	2.58	0.00	0.84	15.0	7	10	15	6	sw.	E. R. Pember.
Woodstock	Windsor	700	25	9.6	-5.8	37	12	-32	2	37	2.93	+0.13	1.09	28.0	7	14	4	13	nw.	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	28	14.1	-9.5	44	12	-20	2	34	4.11	+0.48	1.65	18.5	11	15	7	9	nw.	Mass. Agr. College.
Blue Hill	Norfolk	640	33	17.6		48	12	-7	2	25	3.34		0.92	17.6	12	11	9	11	w.	Blue Hill Observatory.
Boston	Suffolk	124	47	21.0	-6.0	54	12	-3	1	26	3.11	-0.71	0.86	13.8	11	11	8	12	w.	U. S. Weather Bureau.
Chestnut Hill	do	124	37	21.9	-4.5	50	12	-3	1	33	3.46	-0.69	0.99	12.8	11	19	0	12	nw.	Met. Water Board.
Clinton	Worcester	370	21	16.8		49	12	-7	2	34	3.52	-0.19	1.19	12.8	8				nw.	Do.
Concord	Middlesex	139	27	15.6	-8.7	49	12	-14	2	36	3.15	-0.19	0.93	12.9	10	10	10	11	nw.	Fred A. Tower.
Fall River	Bristol	200	51	20.8	-7.9	50	12	-3	2	22	4.01	-0.48	1.14	14.8	11	7	21	3	nw.	C. V. S. Remington.
Fitchburg	Worcester	550	34	15.6	-8.0	48	12	-8	1	32	2.48	-0.87	0.92	17.0	8	18	3	10	nw.	Dr. A. P. Mason.
Framingham	Middlesex	160	37	18.4	-7.3	48	12	-6	2	36	3.34	-0.60	1.13	13.5	9				nw.	Met. Water Board.
Lawrence	Essex	51	33	15.6	-8.2	49	12	-12	31	36	3.01	-0.61	1.00	13.4	11	11	13	7	w.	Essex Company.
Lowell	Middlesex	100	32	16.0	-7.8	47	12	-14	31	39	3.37	-0.40	1.07		11				w.	Props. Locks & Canals.
Nantucket	Nantucket	47	31	24.0	-8.1	49	12	5	2	19	2.71	-0.71	0.70	15.0	11	5	14	12	w.	U. S. Weather Bureau.
New Bedford	Bristol	88	105																nw.	City Engineer.
Plymouth	Plymouth	50	32	19.7		48	12	-5	2	33	4.12	-0.66	0.96	19.0	8	18	2	11	nw.	Miss L. B. Knapp.
Provincetown	Barnstable	40	30	23.5	-6.3	41	12	-8	2	23	3.01	-1.14	0.72	14.5	11	13	5	13	nw.	Gideon Bowley.
Rockport	Essex	25	15	20.2		45	12	0	1	30	2.53		0.94	14.0	11	17	4	10	w.	U. S. C. G. Station.
Rutland	Worcester	1,160	15	12.9		44	12	-11	1	44	3.24		1.07	15.6	10	13	7	11	w.	State Sanatorium.
Springfield	Hampden	199	7	18.0	-7.0	48	12	-11	2	29	3.73	+0.30	1.50	12.3	11	9	12	10	nw.	U. S. Army.
Turners Falls	Franklin	200	31	13.1	-8.5	36	12	-25	2	31	4.00	+0.78	1.52	27.1	8	10	9	12	w.	Turners Falls Co.
Westboro	Worcester	298	43	21.9	-8.6	52	12	-4	1	38	3.84	-0.41	1.25	10.0	7				w.	Miss E. W. Newcomb.
Williamstown	Berkshire	711	36	11.4	-10.4	42	12	-17	21	27	1.89	-0.79	0.50	22.8	13	11	10	10	nw.	Williams College.
Worcester	Worcester	518	25	18.0	-6.8	51	12	-5	1	24	2.84	-1.34	0.69	25.2						



## Day of month.

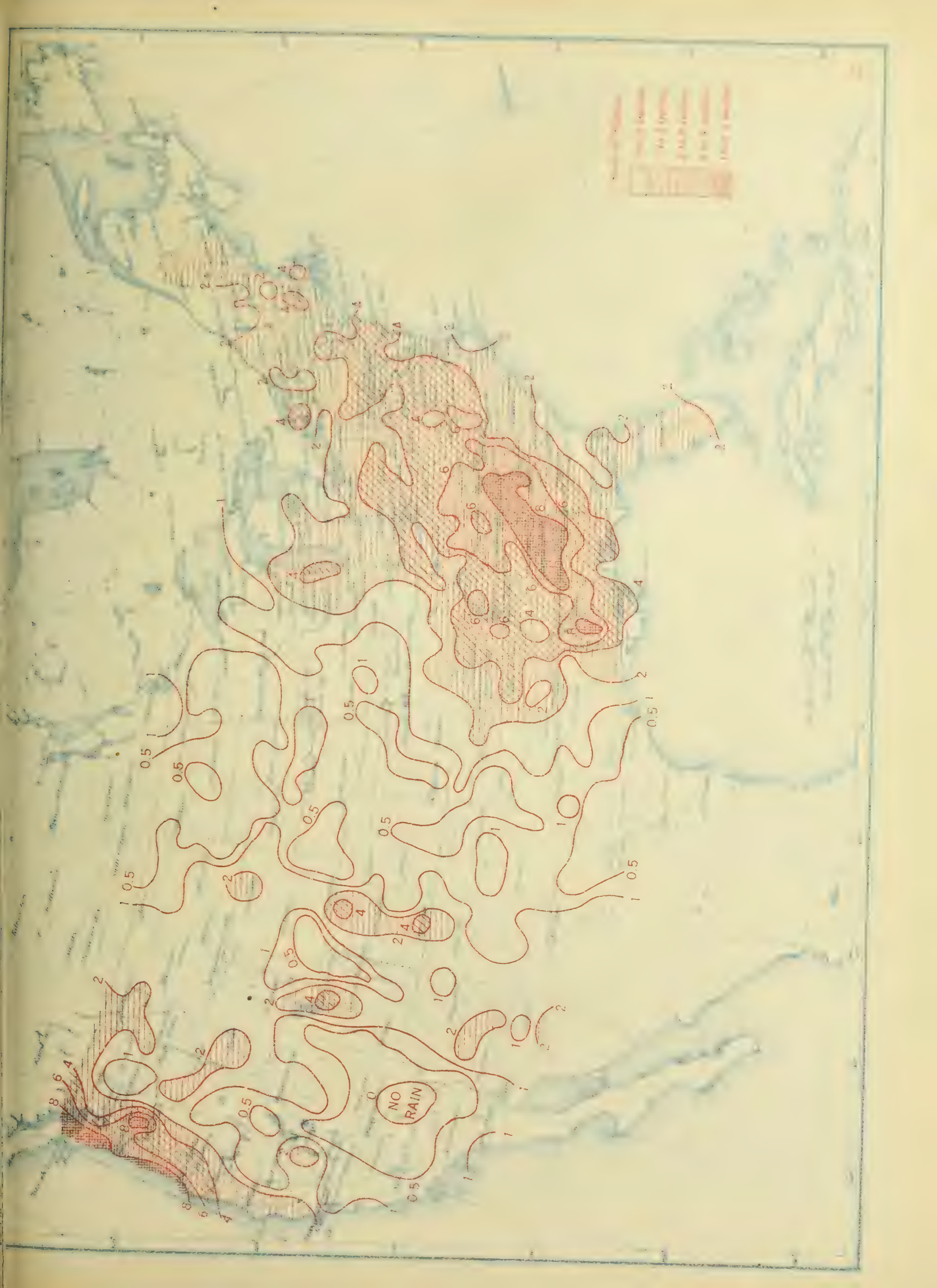
Continued on page 8.



## Daily Temperatures for January, 1918.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean	
Maine.																																	
Bar Harbor.....	Maximum	6	9	5	17	17	32	33	35	33	25	22	37	41	24	33	40	27	30	24	24	24	22	23	19	32	32	20	9	24	19	18	24.4
	Minimum	-7	-9	-5	2	10	11	10	32	20	12	7	8	16	8	11	18	8	18	12	10	8	12	2	0	9	-6	-11	1	8	-1	7.2	
Cornish.....	Maximum	15	15	10	24	30	41	27	40	38	32	32	36	34	24	29	35	25	33	30	22	34	23	35	26	26	33	23	10	33	25	27	27.8
	Minimum	-19	-30	-26	5	8	11	2	25	13	11	0	4	2	2	1	9	-6	-2	2	-4	6	-8	-3	-4	2	-12	-26	1	-17	-14	-2.3	
Eastport.....	Maximum	0	5	12	20	22	29	35	36	32	16	17	42	37	21	39	31	28	26	23	19	22	21	14	31	31	5	3	21	18	13	22.3	
	Minimum	-10	-10	2	11	12	19	24	32	12	8	7	17	7	7	16	18	15	19	17	8	8	9	13	4	8	-1	-6	-11	3	5	8.6	
Farmington.....	Maximum	14	10	4	14	14	28	24	34	30	29	21	30	25	18	20	22	20	22	25	22	20	19	22	25	13	21	10	7	20	19	15.9	
	Minimum	-21	-22	-28	2	7	8	1	22	17	10	8	-2	0	-3	-2	-5	-5	-6	-6	-7	5	-3	0	-5	-10	-2	-13	-27	0	-5	-12	-3.4
Greenville.....	Maximum	-3	2	-5	7	6	18	30	31	24	10	18	33	34	17	20	18	27	25	16	12	14	20	16	10	14	18	4	4	22	13	15.5	
	Minimum	-20	-18	-28	-6	1	6	12	23	9	5	4	-3	-1	-3	7	12	0	2	-10	2	3	3	2	-7	-19	-4	-16	-22	-4	-4	-7	-2.6
Millinocket.....	Maximum	3	4	-2	13	10	26	33	34	32	14	15	27	37	18	16	21	28	30	23	15	19	24	19	15	10	22	7	4	18	18	15	18.3
	Minimum	-18	-25	-34	-4	7	10	13	29	12	9	3	-12	0	-2	-8	14	2	-6	-14	4	6	6	4	-1	-24	-2	-15	-28	-3	-3	-7	-2.7
Orono.....	Maximum	4	5	6	14	15	31	31	32	32	25	30	32	39	19	19	27	26	29	29	22	21	24	25	20	15	23	21	9	13	18	21.4	
	Minimum	-14	-22	-21	-4	9	11	11	28	18	9	4	20	-3	1	5	14	-7	11	-1	9	-4	-3	10	-1	-12	-2	-11	-28	-1	3	-11	0.7
Portland.....	Maximum	11	10	6	13	21	33	28	34	30	21	26	42	32	22	28	29	23	28	27	17	25	19	24	19	18	26	11	3	22	20	18	22.1
	Minimum	-3	-9	-2	5	12	20	15	28	20	14	7	18	5	13	16	9	12	15	5	10	8	10	4	11	3	-3	-8	0	5	4	8.0	
Presque Isle.....	Maximum																																
	Minimum	2	6	6	8	14	28	23	34	24	16	22	31	24	20	23	24	22	26	26	12	20	22	21	12	16	20	14	6	25	19	20	19.1
Rumford.....	Maximum	-11	-15	-24	2	10	8	4	24	16	10	2	3	-6	-4	8	0	-7	2	0	-2	11	5	8	2	2	-2	-5	-14	2	-4	0.9	
	Minimum	-18	-16	-5	12	19	31	37	35	33	16	12	24	31	10	14	0	17	14	8	8	16	14	14	14	8	14	15	13	7	10	9	14.0
Van Buren.....	Maximum	-32	-30	-40	-11	19	10	28	29	16	9	4	-19	1	-11	-14	12	-15	-19	-20	-18	4	-11	-10	-7	-33	-11	-18	-24	-7	-22	-18	-8.6
New Hampshire.																																	
Alstead Center.....	Maximum	-3	-4	-4	3	15	20	26	26	20	25	25	39	32	17	18	20	23	23	20	8	18	13	14	15	15	26	8	4	21	15	20	16.7
	Minimum	-14	-14	-14	-9	2	11	11	20	12	11	10	18	-2	0	11	13	8	9	1	-5	2	5	1	-2	8	-7	-11	1	1	-1	1	2.7
Bethlehem.....	Maximum	-5	3	-5	-1	10	18	23	25	21	13	17	45	33	14	22	20	18	27	21	10	13	14	11	9	15	16	3	-2	18	12	11	14.6
	Minimum	-20	-20	-15	-15	3	7	5	21	12	2	5	9	-1	1	10	11	4	9	-6	0	-2	2	-9	-4	-6	-14	-19	-3	-1	-5	-1.4	
Concord.....	Maximum	5	11	7	9	20	29	28	32	27	23	33	47	24	23	25	27	27	27	28	13	24	18	22	20	20	27	16	8	28	19	24	22.1
	Minimum	-10	-10	-14	-1	8	12	11	23	19	12	15	19	5	5	6	6	-1	-1	9	2	10	3	8	5	8	3	-2	-9	5	3	-9	4.5
Franklin.....	Maximum	6	13	8	11	19	30	25	32	31	23	28	41	41	22	25	27	25	27	29	26	24	20	23	22	22	25	19	11	28	24	27	23.7
	Minimum	-16	-19	-23	-4	5	11	5	24	15	8	11	9	3	-7	-4	15	-8	-12	5	-12	-2	-2	-1	-5	6	-2	-9	-19	2	0	-11	-1.2
Hanover.....	Maximum	-1	5	-1	6	19	25	26	30	26	18	25	38	33	21	21	24	14	25	25	14	22	11	20	14	21	25	12	3	27	18	25	19.1
	Minimum	-17	-31	-32	-7	3	9	4	24	10	4	8	3	2	-1	4	6	-9	1	7	-9	-10	-8	-8	-14	6	-2	-11	-23	3	-8	-11	-3.2
Keene.....	Maximum	3	8	3	10	24	28	28	30	28	25	34	40	35	23	23	26	22	24	27	14	26	17	23	21	24	27	17	8	29	18	25	22.5
	Minimum	-13	-28	-25	-6	4	7	8	20	14	10	5	16	3	3	5	10	-7	-1	14	-16	-7	-6	-8	-12	7	-2	-11	5	-8	-14	-0.8	
Plymouth.....	Maximum	0	4	4	5	18	22	27	31	29	19	22	34	31	18	27	24	20	21	24	20	19	20	14	10	22	8	6	25	21	22	19.5	
	Minimum	-10	-8	-30	-5	2	14	4	25	15	10	4	5	3	-11	-8	18	-12	-11	0	-8	6	4	-1	3	7	1	-5	-16	4	8	-11	-0.1
Vermont.																																	
Burlington.....	Maximum	4	4	-4	7	20	19	30	31	20	17	22	39	9	18	18	22	23	25	18	11	20	14	15	9	23	24	-7	7	23	15	14	16.5
	Minimum	-13	-15	-12	-7	7	7	8	17	10	9	12	9	0	6	13	13	10	16	5	-2	0	-3	5	-6	9	10	-20	-25	7	-2	-4	1.5
Enosburg Falls.....	Maximum	0	7	-4	3	15	18	33	32	23	13	20	41	20	19	20	22	28	16	9	19	20	15	11	21	22	-2	6	20	17	17	17.1	
	Minimum	-21	-24	-19	-14	3	6	3	22	7	5	4	0	0	5	15	6	-6	9	-6	-5	2	5	-11	-5	-9	-22	-40	12	0	-2	-2.5	
Northfield.....	Maximum	-2	4	-3	5	17	20	26	30	25	14	24	37	15	18	19	22	21	26	19	10	12	18	12	20	26	5	5	23	15	20	16.9	
	Minimum	-24	-33	-31	0	3	3	5	18	8	6	3	7	-1	5	5	1	-9	4	-2	-6	-5	-12	-5	-9	5	-11	-22	-30	5	-9	-12	-4.7
St. Johnsbury.....	Maximum	4	1	-2	2	14	24	22	32	28	19	23	37	36	20	21	27	21	28	23	17	19	15	20	15	18	19	9	3	25	19	20	18.8
	Minimum	-21	-35	-33	-9	0	12	0	20	10	8	9	1	2	2	11	13	-12	7	-18	-2	-18	-3	5	1	4	-20	-31	0	4	-12	-3.5	
Wells.....	Maximum	-3	0	-6	0	15	16	32	30	20	20	24	36	32	15	20	18	24	22	20	10	16	15	15	22	22	8	7	20	18	18	16.8	
	Minimum	-15	-16	-15	-12	-7	6	8	20	14	6	10	14	-2	-2	8	7	6	10	10	-4	0	2	4	-5	0	6	-10	-20	5	-8	-1	0.8
Massachusetts.																																	
Amherst.....	Maximum	10	5	9	14	24	32	32	30	27	28	36	44	10	26	28	32	20	22	26	16	28	16	21	22	26	30	19	9	30	20	26	23.2
	Minimum	-11	-20	-10	-2	14	11	13	20	17	16	20	19	4	4	14	11	4	4	1	-6	4	0	2	4	12	11	2	-2	7	0	-8	5.0







## Daily Precipitation for January, 1918—Continued from page 5.

Daily Precipitation for January, 1900.																																Total.		
Stations.	Watersheds.	Day of month.																																
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		31	
<i>Rhode Island.</i>																																		
Block Island ***	Coast			.04				.81					.55	T.		.86		T.		.07			.42		T.	.01		.02	.02	T.			2.80	
Bristol	do		.04					.85					.69			.67		T.		.02			.23						.08				2.58	
Greene	do							.91				1.23				.86							.27					.07					3.34	
Hope Valley	do												1.98			1.08		.05		.70			.10										3.91	
Kingston	do			.08			1.07			T.			.88			.88		T.		.05			.60		.04		.07	.10					3.77	
Narrag'sett Pier***	do			.05			.95			T.			.69			.67		T.		.05			.70		T.	.05	.08	.05	.03				3.82	
Pawtucket	do			.08			*	.89					1.29			1.00	T.	T.		.09			.24		T.	.02		*	.10				3.71	
Providence***	do			.01				.87		T.			1.01			.84		T.		.04			.23							.03			3.11	
Walling Lake	do																																3.63	
<i>Connecticut.</i>								.75	.03				1.12			1.11		.01		.08			.32		.07	.03		.08	.03					
Bridgeport	Coast																																3.41	
Canton	Connecticut			T.				.08	T.	T.		T.	1.32			1.11				.10			.60		T.	T.		.10					3.90	
Colchester	Coast							.15	.01	.02	.02		1.60			1.15		.08		.20			.25			.15		.02	.20	.05			2.05	
Cream Hill	Housatonic							.25					.51			.40		T.		.20			.50			.10							4.41	
Danielson	Coast							.56					1.98			1.20	.10			.16			.18		.10				.13			T.	3.01	
East Hartland	Housatonic							.53		.05			.25	.10		.65			.03	.20	.10			.20		T.	T.	T.	.03	.12	.01		3.28	
Falls Village	Connecticut							.54	.01	T.			.07	1.18		.93		.25							.05			.02	.09	.07	T.	.07	T.	3.72
Hartford***	Coast							.94	.01				.16	.95		.99		T.	.05	.03			.29		.01	T.	.02	.09	.07	T.		T.	3.61	
Lake Konomocoff.	do			T.	T.			.94	.01				.16	.95		1.60		T.		.07			.49			.18		.21	.06	.01			4.81	
New Haven***	do			.03				1.10	.04				1.02			1.60		.03		.18			.22			.08		.18					3.95	
New London	do							.82				1.17				.97		.04	*	.17			.32		.07	.04		.12	.04				3.48	
N. Grosvenor Dale	do							.35					1.25			1.08				.10			.10					.05					3.90	
Norwalk	do							.60	.10				1.75			1.20		T.															3.80	
Southington	do																																3.30	
Storrs	Coast									.64			2.12							.25				.16			.04	.02	.03	.02	.02		3.35	
Torrington	Housatonic									1.00	T.		1.23			.83		T.					.20			T.	T.		.04	*	.05		2.78	
Voluntown	Coast												1.40			.67		T.			.22			.03				.07	.09	T.				
Waterbury	Housatonic																																	

## Special River Rainfall Stations.

Maine.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						</
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## Daily Evaporation (inches) and Wind Movement (miles).

Gardiner, Me.	Evaporation																																
Dorchester Center, Mass.	Wind movement																																
	Evaporation																																
	Wind movement																																

| Observations taken at 6 p. m.

||| Observations taken at 7 a. m.

See temperature and precipitation data in Climatological Tables.

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations.

\*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

\* Precipitation indicated in that of following day.

†† Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.; Sewall's Falls, Concord, N. H.

## Comparative Data for New England for January.

Year.	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.								
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888....	15.4	59	-44	4.31	.....	14	23.3	10	13	7	.....	nw.	12.0	56	se.	1904....	15.0	53	-44	3.76	1.75	12	29.0	12	6	13	49	nw.	10.1	66	nw.
1889....	30.7	63	-14	4.97	.....	12	10.0	10	10	11	.....	nw.	11.5	70	e.	1905....	18.3	56	-45	3.81	3.30	10	24.9	12	8	11	51	nw.	11.8	84	se.
1890....	28.6	69	-23	2.97	.....	15	8.9	7	9	15	.....	nw.	12.3	66	nw.	1906....	30.3	69	-25	2.83	2.20	9	7.5	12	11	48	sw.	11.0	67	w.	
1891....	26.0	59	-30	6.83	.....	16	11.0	5	9	14	.....	nw.	11.3	72	ne.	1907....	20.5	65	-15	2.81	2.15	12	16.5	8	8	15	35	nw.	10.3	67	w.
1892....	24.6	64	-30	1.81	.....	13	12.3	3	7	10	.....	nw.	12.2	65	se.	1908....	24.5	65	-26	2.94	2.00	8	8.2	14	8	9	52	nw.	13.4	83	se.
1893....	15.3	55	-39	2.51	.....	13	13.9	11	8	12	.....	nw.	10.9	84	se.	1909....	24.7	62	-32	2.78	2.78	12	18.8	9	7	16	34	nw.	12.3	68	s.
1894....	24.7	58	-19	2.98	.....	14	18.1	11	8	12	.....	nw.	12.1	78	ne.	1910....	25.6	64	-28	4.65	3.53	12	12.4	12	6	13	40	nw.	12.3	78	sw.
1895....	22.6	56	-23	3.16	.....	14	15.5	10	9	12	.....	nw.	11.2	63	se.	1911....	25.2	60	-33	2.73	1.50	12	18.8	11	7	13	38	nw.	12.1	66	w.
1896....	19.9	50	-23	1.68	.....	9	10.8	10	9	12	.....	nw.	13.1	66	e.	1912....	15.2	55	-39	3.07	2.28	11	21.6	12	8	11	47	sw.	12.2	77	nw.
1897....	23.0	60	-23	3.72	2.80	9	20.4	9	10	12	.....	nw.	13.1	66	e.	1913....	25.2	60	-33	2.73	1.50	12	18.8	11	7	13	38	nw.	12.1	66	w.
1898....	21.9	58	-39	5.03	2.08	9	9.5	14	7	10	.....	nw.	12.1	70	w.	1914....	25.1	63	-38	3.00	1.11	10	10.4	9	6	16	35	nw.	13.4	80	nw.
1899....	22.3	59	-32	3.59	2.30	10	19.7	12	9	10	.....	nw.	12.4	68	w.	1915....	25.8	62	-38	5.32	3.85	12	12.1	11	7	13	44	nw.	10.7	78	ne.
1900....	23.8	62	-28	4.59	3.00	10	15.0	11	8	12	.....	nw.	11.8	60	e.	1916....	23.8	70	-29	1.63	0.98	10	8.8	11	7	13	44	nw.	13.2	66	nw.
1901....	21.8	55	-31	2.24	1.50	10	15.0	11	8	12	.....	nw.	11.8	60	e.	1917....	21.9	55	-36	3.18	1.87	12	16.6	10	6	15	39	nw.	12.0	79	w.
1902....	21.1	56	-29	2.49	3.08	8	9.5	14	7	10	.....	nw.	10.7	64	nw.	1918....	13.2	54	-44	2.89	2.12	10	20.0	13	8	10	49	nw.	12.3	79	s.
1903....	22.8	57	-37	3.56	2.40	10	11.1	12	8	11	.....	w.	10.7	56	w.																



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U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU

CHARLES F. MARVIN, CHIEF

OFFICE OF CLIMATE SERVICE

MARCH 22, 1918

# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

FEBRUARY, 1918

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BY

JOHN W. SMITH

METEOROLOGIST

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
MARCH 22, 1918



Departure of the Mean Temperature from the Normal, February, 1918.



Shaded portions show excess (+).  
Unshaded portions show deficiency (-).  
Lines show amount of excess or deficiency.



## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

VOL. XXX. BOSTON, MASS., FEBRUARY, 1918.

No. 2.

## GENERAL SUMMARY.

The month was colder than normal, extremely cold weather prevailing during the first week and at the beginning of the last decade; seasonable temperatures prevailed during the middle and last of the month. The depth of snow on the ground, which had increased to between 3 and 6 feet in the northern interior portions of the section, gradually diminished after the middle of the month, and at the close there was little or none remaining in the southern States.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 12 stations reporting, was 30.03 inches, which was 0.01 inch below the normal for the month, and 0.12 inch above the mean for February, 1917. The highest monthly mean was 30.08 inches, at New Haven, Conn.; the lowest, 29.97 inches, at Eastport, Me. The highest recorded was 30.76 inches, at Hartford, Conn. on the 22d; the lowest, 28.58 inches, at Amherst, Mass. on the 26th. The monthly range for the section was 2.18 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 78 stations, was 18.8°, which was 0.2° above the mean for February, 1917. During the past 30 years the average February temperature has been higher in 24 and lower in 6 years than that of the present month. The highest average February temperature during this time was 30.3°, in 1890; the lowest, 15.9°, in 1907. The average temperature for the several States of the section was as follows: Maine, 13.3°; New Hampshire, 16.1°; Vermont, 15.1°; Massachusetts, 23.0°; Rhode Island, 25.5°; Connecticut, 24.6°. The average temperature for the section was 3.2° below the normal for the month. The departures from the normal for the several States were as follows: Maine, -4.0°; New Hampshire, -4.1°; Vermont, -3.0°; Massachusetts, -2.7°; Rhode Island, -3.9°; Connecticut, -2.1°. The highest monthly mean was 28.4°, at New London, Conn.; the lowest, 4.9°, at Van Buren, Me. The highest recorded was 62°, at Waterbury, Conn. on the 25th; the lowest, -41°, at Pittsburg, N. H. on the 5th. The greatest monthly range was 93°, at Pittsburg, N. H.; the least, 55°, at Block Island, R. I. The greatest daily range was 67°, at Pittsburg, N. H. on the 21st.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 12 stations reporting, was 77 per cent, which was 3 per cent above the average for February, 1917, and 4 per cent above the normal for the month. The highest monthly average was 83 per cent, at Burlington, Vt.; the lowest, 67 per cent, at Blue Hill Observatory, Hyde Park, Mass.

## PRECIPITATION.

The average for the section, as determined from the records of 81 stations, was 2.72 inches, which was 0.53 inch above the average for February, 1917. During the past 30 years the average February precipitation has been greater in 16 and less in 14 years than that of the present month. The greatest average February precipitation during this time was 7.13 inches, in 1900; the least, 0.96 inch, in 1901. The average precipitation for the several States of the section was as follows: Maine, 2.78 inches; New Hampshire, 2.24; Vermont, 2.31; Massachusetts,

2.93; Rhode Island, 3.22; Connecticut, 2.99. The average for the section was 0.57 inch below the normal for the month. The departures from the normal for the several States were as follows: Maine, -0.33 inch; New Hampshire, -0.65; Vermont, -0.28; Massachusetts, -0.62; Rhode Island, -0.92; Connecticut, -0.88. The greatest monthly amount was 5.33 inches, at Somerset, Vt.; the least, 1.33 inches, at Enosburg Falls, Vt. The greatest amount in 24 hours was 2.50 inches, at Kingston, R. I. on the 19-20th. The average snowfall for the section was 11.5 inches, which was 1.3 inches below the average for February, 1917, and 5.1 inches below the normal for the month. During the past 30 years the average February snowfall has been greater in 23 and less in 7 years than that of the present month. The greatest average snowfall in any February during this period was 39.1 inches, in 1893; the least, 7.8 inches, in 1912. The average snowfall in the several States was as follows: Maine, 15.3 inches; New Hampshire, 14.0; Vermont, 13.5; Massachusetts, 9.7; Rhode Island, 5.4; Connecticut, 5.5. The average number of days with .01 inch or more of precipitation was 11, which was 3 more than the average for February, 1917, and the normal number for the month.

## WIND.

The prevailing direction of the wind was from the southwest; the normal direction is from the northwest, as determined from the records of the past 30 years. The greatest monthly wind movement at any station was 14,802 miles, at Blue Hill Observatory, Hyde Park, Mass.; the least, 3,845 miles, at Concord, N. H. The average hourly wind movement was 12.8 miles, which was 0.1 mile above the average for February, 1917, and 0.4 mile above the normal for the month. The highest recorded velocity was 102 miles per hour from the south, at Blue Hill Observatory, Hyde Park, Mass. on the 26th. This is the highest recorded velocity of record for the month.

## SUNSHINE AND CLOUDINESS.

The average number of clear days was 10; partly cloudy, 7; cloudy, 11, which compares with the normal for the month of 11 clear, 7 partly cloudy, and 10 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 50, which was 2 per cent below the average for February, 1917, and 4 per cent below the normal for the month, as determined from the records of the past 26 years. The greatest percentage of possible sunshine at any station was 62, at Eastport, Me.; the least, 26, at Northfield, Vt. The greatest average percentage of possible sunshine for any February during the past 26 years was 65, in 1893; the least, 36, in 1897.

## DATES OF MISCELLANEOUS PHENOMENA.

*Thunderstorms* (dates and number of observers reporting on each)—Maine: 15th, 2. Vermont: 15th, 4. Massachusetts: 26th, 2. Rhode Island: 25th, 1; 26th, 4. Connecticut: 25th, 1; 26th, 4.

*Auroras*.—Eastport, Me., 10, 13; North Bridgton, Me., Berlin, Franklin, Plymouth, N. H., Concord, Mass., 13; Bethlehem, N. H., 13, 21; Hanover, N. H., 1, 11, 13; Woodstock, Vt., 13, 16, 17; Hartford, Conn., 14.

*Halos, Lunar*.—Eastport, Me., 14, 16; North Bridgton, Me., 17; Bethlehem, N. H., 16; Enosburg Falls, Vt., 17, 19; Northfield, Vt., 23; Blue Hill, Leominster, Mass., Hartford, Conn., 23, 24; Boston, Mass., 23, 24, 27; Hingham, Mass., 24; Block Island, R. I., 14, 18, 23.

*Halos, Solar*.—Eastport, Me., 3, 10, 27; North Bridgton, Me., Northfield, Vt., 14; Enosburg Falls, Vt., 16; Woodstock, Vt., 13, 16, 18; Blue Hill, Mass., 14, 16, 18, 22, 27; Boston, Mass., 12, 14, 16, 18, 22; Hingham, Mass., 16, 18, 24, 27; Somerset, Mass., 16, 18, 22; Hartford, Conn., 1, 13, 14, 16, 18, 22, 25, 27; New Haven, Conn., 23, 24.



## Climatological Data for February, 1918.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				No. of days.			Prevailing direction of wind.	Observer.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.			Partly Cloudy.	Cloudy.
Maine.																				
Bar Harbor	Hancock	20	32	21.0	-1.6	56	24	-14	5	57	4.35	-0.02	0.85	18.0	15	16	4	8	nw.	Mount Desert Nurseries.
Cornish	York	778	63	16.7	-4.7	59	25	-20	22	45	2.89	-0.96	0.90	14.0	11	3	15	10	sw.	T. H. West.
Eastport	Washington	53	46	17.6	-3.8	49	26	-16	5	38	3.95	+0.33	0.74	24.6	14	8	9	11	w.	U. S. Weather Bureau.
Farmington	Franklin	450	21	12.6	-4.9	51	20	-22	5	43	2.38	-0.77	0.91	8.5	10	8	10	10	nw.	State Normal School.
Gardiner	Kennebec	163	26	15.0	-4.9	53	25	-25	9	53	2.45	-0.99	0.70	17.0	11	12	1	15	se.	Samuel D. Soule.
Greenville	Piscataquis	1,140	14	10.2		49	25	-29	5	41	2.47	-0.28	0.67	16.4	12	7	7	14	.....	U. S. Weather Bureau.
Houlton	Aroostook	362	16	10.4		45	20	-28	2	49	1.75	-0.37	0.40	15.0	8	9	7	12	w.	Bangor & Aroostook RR.
Lewiston	Androscoggin	185	35	13.2	-6.7	51	25	-21	9	44	2.44	-1.40	0.72	13.4	15	7	16	5	n.	Union Water Power Co.
Madison	Somerset	257	15	10.0		52	21	-23	22	63	2.42	-0.41	0.78	11.5	13	12	5	11	nw.	William Jardine.
Millinocket	Penobscot	386	15	11.0		48	25	-28	11	51	3.03	+0.14	0.54	20.2	11	12	1	15	w.	Great Northern Paper Co.
North Bridgton	Cumberland	450	25	16.0	-3.4	55	25	-21	6	45	2.50	-0.90	1.12	19.0	9	11	4	13	n.	C. L. Chadbourn.
Orono	Penobscot	129	49	17.4	-1.8	50	25	-19	9	48	2.91	-0.71	0.80	19.0	11	14	5	9	nw.	Maine State College.
Patten	do	550	16	9.1 <sup>d</sup>		40 <sup>d</sup>	14 <sup>t</sup>	-27 <sup>d</sup>	5	48 <sup>d</sup>	2.60	0.00	1.00	10.0	4	2 <sup>d</sup>	6 <sup>d</sup>	16 <sup>d</sup>	ne.	Bangor & Aroostook RR.
Portland	Cumberland	99	47	18.8	-5.0	53	15	-14	5	41	2.62	-1.03	0.58	16.0	15	7	10	11	nw.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	9	6.4		46	25	-36	2	49	3.80	+1.93	1.30	18.0	8	14	6	8	w.	E. M. Libby.
Rumford	Oxford	505	25	14.2	-4.0	51	20	-21	5	47	1.99	-1.18	1.11	9.6	11	9	13	6	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	14	4.9		46	25	-40	22	49	3.07	+0.67	0.68	17.8	10	15	10	3	nw.	Rev. J. M. Thomas.
Winslow	Kennebec	90	23	15.4	-3.3	52	20	-20	5	47	2.37	-0.07	0.63	7.0	11	10	11	7	w.	Hollingsworth & Whitney
New Hampshire.																				
Alstead Center	Cheshire	1,120	14	18.4	-1.4	47	20	-22	5	30	1.84	-0.96	0.64	16.0	9	14	4	10	sw.	Frank Dewing.
Berlin	Coos	1,090	21	12.1		54	19	-35	5	61	3.67	+0.69	0.92	17.0	14	7	11	10	nw.	Brown Company.
Bethlehem	Grafton	1,470	26	12.6	-4.8	48	25	-28	5	44	1.90	-0.46	0.78	7.5	9	8	8	12	w.	Benjamin Tucker.
Concord	Merrimack	350	57	17.4	-6.2	52	26	-16	5	43	1.82	-1.46	0.71	14.8	12	11	9	8	n.	U. S. Weather Bureau.
Durham	Stafford	88	23	19.8	-4.9	55	15	-16	5	37	1.90	-1.19	0.46	9.0	7	8	7	13	nw.	N. H. Agr. College.
Franklin	Merrimack	440	19	15.3	-3.2	55	25	-22	2	55	2.34	-0.47	0.78	15.7	11	10	4	14	s.	Gilbert Hodges.
Glencoff	Grafton	1,650	5	14.2		49	26	-28	5	53	2.56	0.66	13.4	10	10	8	10	nw.	State Sanatorium.	
Grafton	do	863	32			52	20	-23	6	43	1.85	-0.54	0.86	11.8	12	3	8	17	s.	P. R. Kimball.
Hanover	do	603	84	15.2	-3.9	52	20	-23	2	48	2.16	-0.53	0.65	12.2	13	11	6	11	sw.	Dartmouth College.
Keene	Cheshire	506	33	17.6	-5.0	53	25	-23	2	48	2.09	-1.11	0.40	16.5	10	6	14	8	sw.	Samuel Wadsworth.
Newton	Rockingham	126	30	19.4	-4.9	54	15	-21	2	44	2.04	-0.55	0.78	17.0	8	10	5	13	w.	W. C. Gale.
Pittsburg	Coos	1575		9.0		52	26	-41	5	67	2.04	0.55	17.0	8	10	5	13	w.	Conn. Valley Lumber Co.	
Plymouth	Grafton	500	30	15.0	-2.9	50	20	-20	22	43	2.46	-0.45	0.78	17.0	10	11	5	12	e.	Mrs. Hattie G. Trow.
Vermont.																				
Bloomfield	Essex	11	11	13.8	-4.1	55	25	-35	6	57	2.86	+1.04	1.24	24.5	19	2	21	5	se.	Lyman Falls Power Co.
Burlington	Chittenden	404	11	15.2		47	20	-23	5	50	1.79	+0.42	0.50	9.4	16	5	7	16	s.	U. S. Weather Bureau.
Cavendish	Windsor	910	15	15.4		51	20	-23	9	44	1.84	-0.86	0.46	10.8	16	14	6	8	.....	Colonial Power Co.
Chelsea	Orange	840	23	13.6	-5.2	48	20	-27	6	51	1.87	-1.27	0.60	9.0	7	5	7	16	s.	W. F. Dewey.
Cornwall	Addison	517	25	17.0	-2.2	46	25	-24	5	33	1.76	-0.34	0.50	9.5	11	10	8	10	s.	C. H. Lane.
Enosburg Falls	Franklin	601	27	14.6	-2.4	51	25	-29	6	47	1.33	-1.39	0.40	20.5	13	6	8	14	w.	J. W. Pomeroy.
Hyde Park	Lamoille	576	6	13.6		53	20	-27	5	46	2.30	0.54	23.0	10	7	5	16	s.	A. V. Wiswell.	
Northfield	Washington	876	32	13.8	-3.4	57	20	-24	5	59	2.05	-0.21	0.81	13.6	13	4	5	19	s.	U. S. Weather Bureau.
Rutland	Rutland	562	2	14.3		46	15	-22	11	48	2.13	0.82	7.3	12	9	8	11	nw.	George H. Ross.	
Somerset	Windham	2,096	7	13.6		47	25	-24	4	46	5.33	2.49	17.0	15	10	9	9	9	sw.	Power Construction Co.
St. Johnsbury	Caledonia	711	25	13.6	-3.6	53	25	-26	6	42	2.85	+0.75	0.92	16.0	19	5	13	10	n.	Fairbanks Museum.
Vernon	Windham	310	3	19.0	-3.2	49	15	-25	2	44	2.94	-0.05	0.74	8.0	9	9	7	12	sw.	Conn. River Power Co.
Wells	Rutland	750	27	17.7	-1.2	50	15	-24	5	32	2.19	-0.47	0.68	7.0	9	8	8	12	sw.	E. R. Pember.
Woodstock	Windsor	700	26	15.7	-1.7	48	15	-22	5	45	2.08	-0.66	0.71	13.5	8	9	7	12	.....	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	29	19.6	-5.3	51	25	-22	2	43	2.99	-0.43	0.65	11.0	11	13	7	8	sw.	Mass. Agr. College.
Blue Hill	Norfolk	640	34	24.3	-1.3	54	25	-14	5	38	3.05	-0.84	1.04	7.7	15	5	11	12	w.	Blue Hill Observatory.
Boston	Suffolk	124	43	26.9	-1.1	57	15	-10	5	43	2.30	-1.14	0.82	5.7	12	6	13	9	sw.	U. S. Weather Bureau.
Chestnut Hill	do	124	38	26.9		56	25	-14	5	41	4.04	-0.18	1.22	7.0	12	19	0	9	.....	Met. Water Board.
Clinton	Worcester	370	22	23.9		54	25	-16	2	40	3.79	+0.57	0.94	8.8	13				Do.	
Concord	Middlesex	139	28	20.9	-2.5	55	25	-25	2	49	2.25	-0.99	0.66	8.8	14	6	11	11	nw.	Fred A. Tower.
Fall River	Bristol	200	52	26.6	-2.0	51	25	-10	5	34	3.56	-0.63	1.55	9.8	11	6	17	5	sw.	C. V. S. Remington.
Fitchburg	Worcester	550	35	21.9	-2.2	54	25	-15	5	36	3.11	-0.17	0.78	10.5	13	12	6	10	nw.	Dr. A. P. Mason.
Framingham	Middlesex	160	33	24.8	-1.9	55	55	-14	2	38	3.72	-0.25	1.10	6.8	11				sw.	Met. Water Board.
Lawrence	Essex	51	34	20.4	-4.2	54	15	-22	2	46	2.44	-0.76	0.63	15.2	13	6	14	8	w.	Essex Company.
Lowell	Middlesex	100	33	21.6	-3.5	55	26	-25	2	47	2.25	-2.11	0.63		11				sw.	Props. Locks & Canals.
Nantucket	Nantucket	47	32	27.7	-4.9	52	25	-6	5	34	2.22	-0.89	1.11	3.1	9	5	9	14	sw.	U. S. Weather Bureau.
New Bedford	Bristol	88	106			55	20	-10	5	39	3.18	-0.86	1.05	6.0	8	12	5	11	sw.	City Engineer.
Plymouth	Plymouth	50	33	24.8		55	20	-10	5	31	3.22	-0.31	1.23	10.0	10	13	5	10	nw.	Miss L. B. Knapp.
Provincetown	Barnstable	40	31	27.0	-2.2	49	25	-6	5	38	1.38	0.59	9.5	11	10	6	12	sw.	Gideon Bowley.	
Rockport	Essex	25	16	25.4		55	12	-20	4	54	4.66	1.60	15.8	9	10	3	15	sw.	U. S. C. G. Station.	
Rutland	Worcester	1,160	16	20.4		55	12	-20	4	54	4.66	1.60	15.8	9	10	3	15	sw.	State Sanatorium.	
Springfield	Hampden	199	8	23.6	-2.4	55	25	-13	5	39	3.13	-0.43	1.03	6.7	11	13	4	11	sw.	U. S. Armory.
Turners Falls	Franklin	200	32	18.5	-4.2	50	25	-22	2	43	2.23	-0.21	0.74	9.4	6	13	6	9	.....	Turners Falls Co.
Westboro	Worcester	298	44			54	12	-12	21	34	2.50	-1.33	0.95	13.5	9				w.	Miss E. W. Newcomb.
Williamstown	Berkshire	711	37	20.1	-2.0	50	20	-1												



## Daily Precipitation for February, 1918.

Stations.	Watersheds.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Maine.																																	
Ashland	St. John																																
Bar Harbor	Coast			.30	.80		.20	.10	.20	.30	.10		.10	.30		.40		.20		.40	.30		T.	.30				.85					4.45
Cornish	Saco			.15	.05		.10	.05		.45	T.		.14			.12		.50		.38			.05				.90						2.90
Eastport***	Coast	T.		.26	.48	T.	.09	.02		.59	T.		.30	.04		.30		.24		.57	.17		.10	.21	T.		.40						3.95
Eustis	Kennebec	T.		.03	.07		.07	.08	.20	.06	T.		.26	.01		T.	T.	.08	T.	.15	.51	T.		.02			.42	T.	.02				2.18
Farmington	do			.16			.08	T.	.55	.05			.08	.11		.15		.25		.25						.04	.91						2.38
Gardiner	do			.27	.08		.05	T.	.54	.08			.12	.02	T.	.17		.18		.25					T.		.70						2.45
Greenville**	Penobscot			.30	.15		T.	.20		.50		.05	.20	T.		.06		.05		.15	.12		T.	.02	T.		.67	T.	T.				2.47
Houlton	St. John			.40			.10					.20	.20							.25			.10				.30						1.
Lewiston	Androscoggin			.20	.03		.13	.05	.03	.50	.02		.12			.11		.13		.23	.06		.06	.05	T.		.72						2.44
Madison	Kennebec			*	.20		*	.15	.07	T.	.37		.32			.14		.10		*		.27					.78						2.42
Millinocket	Penobscot			.52			.15			.44		.06	.54		.05					.41					.04		.41						3.03
North Bridgton	Saco			.10			.10	T.	T.	.40			.03	T.		.03				.27	.25		T.	.05	T.		1.12						2.50
Orono	Penobscot				.80			.15	.10		.40		.05	.23		.17		.10			.38			.10			.43						2.91
Patten	do		.40						.60							.60				T.							1.00						2.62
Portland***	Coast			.35	T.		.18	.11	.03	.58	.02		.26			.11		.30		.19	.05		.10	.04			.28		.02				2.62
Presque Isle	St. John			T.	.30				.40	T.	T.		.20	.40	T.					.10	1.00			T.			1.10						3.80
Rumford	Androscoggin			.10	T.		.03	.02	.01	.22	T.		.23	T.		.01		.03		.16	.07		T.		T.		1.11						1.99
Van Buren	St. John			.63						.32			.30	.68		.35				.24	.14						.23	.35		.03			3.07
Winslow	Kennebec			.26					*	.60			.25			.21		.06		.21		.03				.08	.04	.63					2.37
New Hampshire.																																	
Alstead Center	Connecticut			.11	T.		T.	T.		.19	.09		.12			.05		.12		.27	.25		T.	T.	T.		.64		T.			1.84	
Berlin	Androscoggin			.25	T.	.07	.05	T.	.20	.55	T.	.05	.39			T.	.05		.19		.92			.07		.09	.72	.12	T.	.04			3.67
Bethlehem	Connecticut			T.	T.		.05	T.	.20	.25	T.		.05	.18		T.		.19		T.	.19						.78	T.	.05			1.90	
Brookline	Merrimack			.10			.10	T.		.10	T.				.15			.18			.40		.25		T.		.70		.10			2.08	
Concord***	do			.12			.07	.01	.02	.10	T.		.03			T.	.01	.70		.04			.02				.55		.15			1.82	
Durham	do				.20			.33	.07	.39						.10		.35		.46												1.90	
Franklin	do			.09			.09	.03	T.	.37	T.		.07				.31		.27	.09	T.		.10		T.		.78		.14			2.34	
Glenciff	do			T.	.20		.20	.05		.50			.23			T.	T.	.30		*		.40		.02			.66		T.			2.56	
Grafton	do																																
Hanover	Connecticut			.04			.05	.01		.25	.03		.04			.02		.15		.29	T.		.10	T.			.86		.01			1.85	
Keene	do			.12			.02	.02		.40	.02		.38			.04		.20		.38	.18		.03	.07	T.		.65		.03			2.16	
Newton	Merrimack			.10			.21	.03		.26	.02		T.			.11		.30		.40	T.		.15				.51		T.			2.09	
Pittsburg (a)	Connecticut			.20			.20		.25	.39			.25					.18		.18							.55		.02			2.04	
Pittsburg (b)	do			.02		.45	.20	T.	.29	.04		.62	.04	T.	T.	.57		.44		.03	T.		.47	.37	T.	T.	T.	1.04	.04			4.62	
Plymouth.	Merrimack			.11	.02			T.	T.	.60	T.		T.			T.	.19		.40		.17	T.		.06	.03		.78	T.	T.			2.46	
Vermont.																																	
Bloomfield	Connecticut			.03	.02			.07	.05	.65	.04	.01	.09	.12		.06	.01	.10		.22	.04	.01		.04	.05		1.24	.01				2.86	
Burlington***	Champlain	T.		.01			.11	.03	.01	.37	.06	T.	.14	.05	.01	.09	.03	.09		.26	.03			.02			.45	T.	.04			1.79	
Avondish	Connecticut			.10	.01		.05	.01		.46	.05		.05	T.		.01	.02	.15		.29	.02		.02	.02		T.	.05		.04			1.34	
Chelsea	do					.06				.25			.02				.20		.20				.04				.60					1.37	
Cornwall	Champlain			.10			.20		.62	.40	.10		T.	.10		.12		.18		.18					T.		.50		.02			1.76	
Enosburg Falls.	do	T.		.02	.01	T.		.04	.12	.01	.40	.04	T.	.36	T.	.19		.08		.05			.01	T.			.50					2.30	
Hyde Park	do						T.	T.	.33	.54	.05		.19			T.	.12	.12		.30	.15		T.	T.			.47	.03				1.83	
Northfield***	Champlain	T.		.04	.05		.09	.02		.15	.01	T.	.10	T.		.14	T.	.18		.40	.06	T.		T.		T.	.10	.71		T.		2.05	
Rutland	do				.05		T.	.05	.01	.04	.20	.09	.02	.13		.05		.08		*	.82	T.		T.		T.		.61				2.13	
Somerset	Connecticut			.27			.22	.03	.03	.70	.06		.31			.04	.05	.14		* 2.49			.10				.68	.05	.16			5.33	
St. Johnsbury	do			.01	.03		.22	.10	.04	.34	.02	.05	.14	.08		.07	T.	.20		.20	.25		.01	.03	.09		.92	.05				2.85	
Vernon	do			.18			.12			.33				.06			.30		.74			.10				.68		.43				2.94	
Wells	Champlain			.13			T.	T.		.32	.08		T.	.14		.09		.09		.68						.58		.08				2.19	
Woodstock	Connecticut			.06			.15			.29	T.		T.			.08		.22		.51	.11					.71						2.08	
Massachusetts.																																	
Amherst	Connecticut			.12			.15			.44	.02					.08		.07		.65						.15		.61		.40		2.99	
Ashland	Merrimack			.19			.04			.28	.03					.11		.08		*		.61		.11			.91		.99			3.35	
Bakers Bridgeff.	do			.13						.35						.03				.25	.19			.07	.04		.78					1.84	
Bedford	do			.13	.02		.08	.03	T.	.34	.06		T.			.06		.22		.25	.19			.07	.04		.74		.22			2.45	
Blue Hill	Coast			.10	.04		.02	.03		.33	.08		T.	.04	T.	.14	T.	.16		.35	.46	T.		.05	.04	T.	1.04		.17			3.05	
Boston***	do			.09			T.	T.	T.	.30	.02		T.			.08	.02	.14		.39	.20			.06	.02	T.	.82		.16			2.30	
Brookton	Coast																																
Chestnut Hill	do			.16			.04			.36	.08			.10		.05		.16		.62	*		.16				1.04	.05		1.22			4.04
Clinton	Merrimack				.22		.05			.30	T.					.14		.19		*	.90		*	.22			.73		.94			3.79	
Concord	do			.06	.10		.02	.08	T.	.30	.06			T.		.04		.20		.19	.24		.04	.09			.66		.97			2.25	
Fall River.	Coast			.06						.26	.07				.03	.04				.50	.75		.14	.07			1.31		.08			3.56	
Fitchburg	Merrimack			.14	T.		.17	.02	.02	.34	T.			.20		.13		.03		.60	.40	T.		.07	.05		.78		.19			3.11	
Framingham	do			.15				.03		.28	.04			1.08		.14				*	.71		.15				1.04		1.10			3.72	
Haverhill	do			.01	.09		.06	.10	.01	.28	.02			.10		.23				.14	.20		T.	.14	T.		.50		.05			1.93	
Hingham	Coast			.08			T.	T.	*	.33			T.			.33		*		*	.40		.07		T.		.95		.96			3.12	
Hyannis.	do			.02				.06					.10							*	1.50		.06			.63						2.41	
Jefferson	Merrimack			.07			.50			.65	.04					.31		.06		*	1.51		.19										

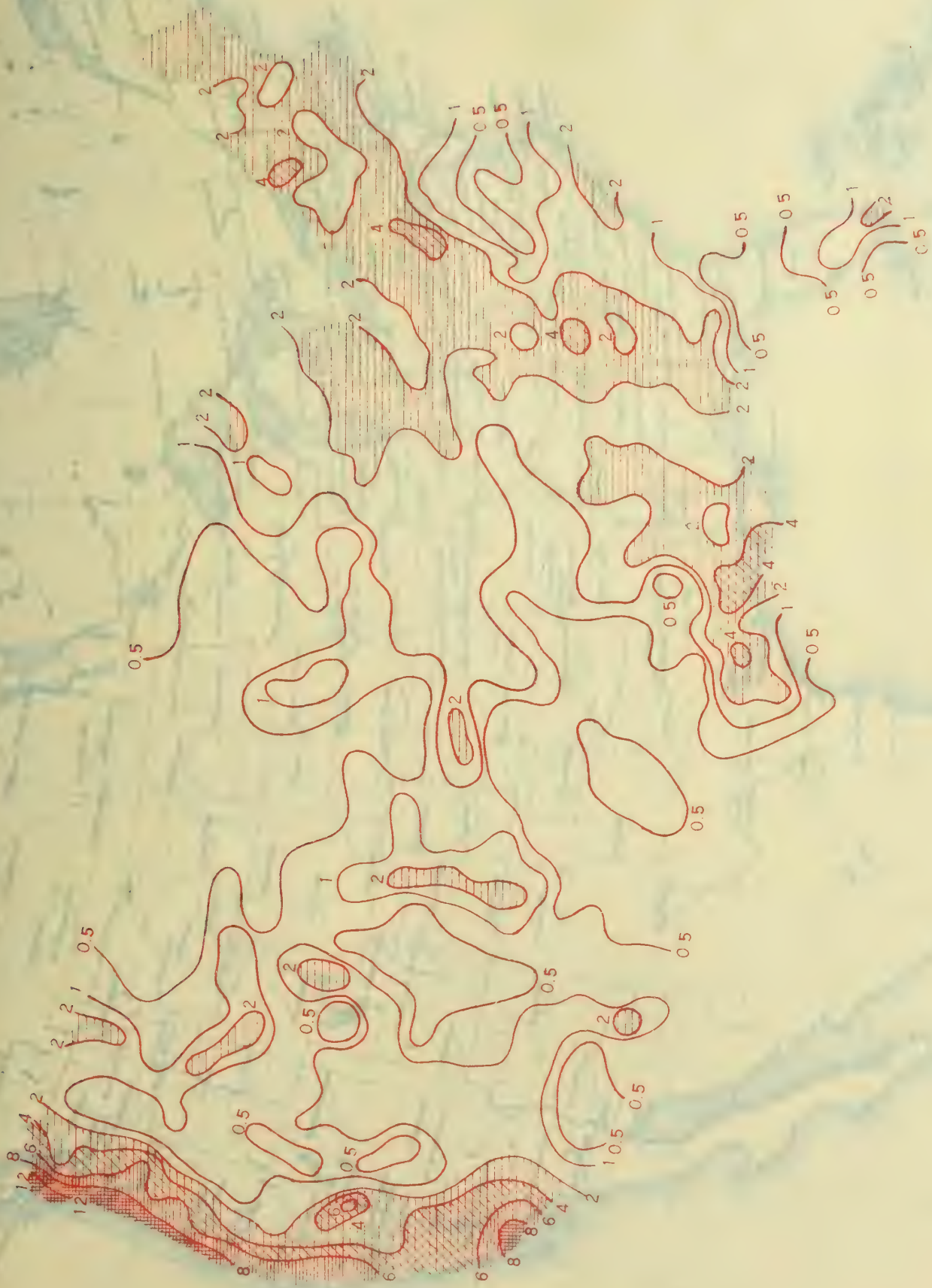
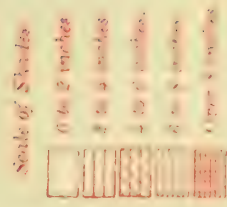
Continued on page 16.



## Daily Temperatures for February, 1918.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean
Maine.																																
Bar Harbor	Maximum	16	19	28	32	20	3	14	20	27	32	25	34	41	42	51	49	37	28	36	50	35	13	35	56	49	46	32	40			32.5
	Minimum	3	-12	-2	-20	14	-13	3	8	-7	15	0	25	31	19	33	8	9	7	20	35	-5	-8	0	-1	31	31	14	18			9.6
Cornish	Maximum	25	25	10	26	0	12	19	29	22	30	28	39	44	48	53	31	34	34	43	56	15	11	32	39	59	52	37	44			32.4
	Minimum	-15	-13	-12	-4	-15	-15	7	-1	-19	-5	-14	14	22	5	28	5	12	-11	0	15	-5	-20	-8	5	21	22	11	19			1.0
Eastport	Maximum	13	14	26	27	-4	8	11	17	31	24	32	34	36	38	45	23	19	23	41	47	9	20	26	35	47	49	30	35			27.0
	Minimum	-5	-8	8	-4	-16	-16	3	7	4	11	2	29	22	21	23	8	8	5	19	9	-9	-9	17	12	33	16	14	25			8.2
Farmington	Maximum	11	17	8	22	-4	2	13	22	18	24	28	30	34	38	48	32	24	26	33	51	13	8	22	29	49	45	30	40			26.2
	Minimum	-12	-16	-8	-4	-22	-15	0	-5	-20	5	-15	2	23	5	32	3	3	-7	-3	13	-12	-17	-12	4	20	12	10	12			-0.9
Greenville	Maximum	5	9	12	18	-11	0	9	16	17	20	18	33	31	40	46	19	15	24	30	47	6	5	27	30	49	41	29	28			21.9
	Minimum	-10	-17	-11	-11	-29	-24	-2	1	-12	7	-11	17	19	17	19	-4	-4	-2	0	6	21	-20	-11	2	26	9	4	17			-1.6
Millinocket	Maximum	10	12	15	25	3	2	13	21	15	20	23	25	29	38	43	35	22	24	32	45	-3	-4	26	32	48	44	30	30			23.7
	Minimum	-10	-12	-15	25	3	2	13	21	15	20	23	25	29	38	43	35	22	24	32	45	-3	-4	26	32	48	44	30	30			-1.7
Orono	Maximum	19	13	18	25	20	11	9	18	22	26	20	34	34	39	45	47	28	23	30	48	39	20	38	33	50	48	37	38			29.7
	Minimum	-14	-15	-11	-17	-18	-16	3	9	-19	9	-11	17	29	12	31	4	5	-1	-2	20	9	15	3	1	27	34	6	18			5.1
Portland	Maximum	17	21	16	22	-4	8	14	20	28	24	30	34	44	41	52	24	25	28	40	50	9	12	24	34	50	45	32	41			27.9
	Minimum	-1	-5	4	-5	14	-9	5	10	0	11	9	27	29	24	24	13	10	3	19	9	-3	-7	4	13	30	22	18	30			9.6
Presque Isle	Maximum	3	8	10	15	-4	-7	3	14	15	18	17	28	25	32	40	14	17	23	32	40	15	10	21	28	46	41	25	20			19.6
	Minimum	-20	-36	-5	-9	-18	-23	-16	-18	-25	-10	-32	12	14	-8	30	-4	-12	-23	3	15	-17	-28	-9	-11	23	12	4	12			-6.9
Rumford	Maximum	10	17	14	20	-12	6	14	23	20	27	23	33	38	42	50	20	23	28	33	51	4	12	28	32	48	42	34	39			25.7
	Minimum	-8	-10	-3	-10	-21	-12	6	-3	-10	16	-2	6	16	10	2	6	10	2	3	4	-9	-14	-8	9	24	17	20	20			2.6
Van Buren	Maximum	7	3	9	12	10	0	4	16	15	15	8	28	29	27	32	17	12	19	28	44	28	0	21	28	46	40	25	25			9.6
	Minimum	-20	-35	-30	-16	-18	-22	-19	-24	-25	0	-32	8	5	3	17	-9	-18	-30	-1	10	-10	-40	-13	-21	28	25	2	10			-9.8
New Hampshire.																																
Alstead Center	Maximum	14	18	18	22	-3	16	34	30	30	30	40	44	40	45	27	17	25	35	47	17	7	25	35	45	43	31	36			28.5	
	Minimum	-2	-8	3	-3	-22	-14	15	5	4	10	8	18	29	25	27	0	10	15	17	-8	-13	-1	18	31	20	21	27			8.2	
Bethlehem	Maximum	22	22	21	-11	1	17	17	21	23	28	42	44	41	43	21	13	21	42	47	3	3	19	29	48	42	32	36			24.4	
	Minimum	-10	-17	-2	-11	-28	-25	-5	1	-5	7	-1	18	20	16	21	-3	3	-4	6	3	-14	-16	-1	10	27	10	1	26			0.8
Concord	Maximum	15	24	14	19	-4	10	21	24	28	28	34	44	48	45	52	26	25	31	50	51	8	9	30	32	52	46	36	38			29.9
	Minimum	-7	-15	-10	-7	-16	-7	10	0	-9	17	4	16	22	11	22	10	4	-12	15	8	10	12	-1	13	20	22	16	30			4.8
Franklin	Maximum	15	24	11	13	-7	8	22	27	18	30	30	40	45	43	52	40	26	35	40	50	26	10	31	32	55	46	39	36			30.1
	Minimum	-8	-22	-12	1	-19	-13	7	10	-12	0	-4	5	30	3	32	6	11	-20	-6	25	-7	-20	-14	6	17	22	11	12			1.5
Hanover	Maximum	11	21	18	23	-3	8	23	22	21	28	32	41	48	40	48	23	22	26	42	52	11	8	27	32	51	43	35	40			28.3
	Minimum	-10	-19	-8	-5	-21	-28	8	5	-9	2	2	21	24	8	22	4	0	-17	8	10	-9	-19	-9	7	29	18	41	26			2.0
Keene	Maximum	17	23	13	22	2	17	37	30	29	33	36	40	48	43	47	30	26	30	40	47	17	10	28	33	53	45	39	35			31.1
	Minimum	-3	-23	-14	-2	-16	-16	18	10	-8	6	-2	15	33	9	40	9	12	-18	3	17	-5	-17	-13	7	25	22	10	26			4.2
Plymouth	Maximum	19	16	11	20	1	5	18	20	15	27	26	36	40	40	46	33	31	24	24	50	20	8	27	29	48	42	34	41			26.8
	Minimum	4	-16	-11	1	-18	-13	7	6	16	12	-3	2	27	-1	30	6	11	-10	-9	20	-6	-20	-16	-1	18	19	11	20			3.1
Vermont.																																
Burlington	Maximum	4	11	26	26	-12	17	10	11	25	20	36	37	35	40	45	13	17	22	42	47	2	10	23	44	46	41	35	36			25.8
	Minimum	-10	-9	2	-16	-23	-15	3	-4	-1	12	4	29	19	24	11	1	4	-2	21	-3	-8	7	6	18	39	13	10	22			5.0
Enosburg Falls	Maximum	5	15	25	26	-5	8	12	16	26	25	36	39	35	45	47	20	16	26	44	50	4	9	26	42	51	47	34	35			27.1
	Minimum	-9	-17	0	-13	-27	-29	3	-6	-21	4	0	31	18	17	20	-5	4	-10	18	3	-11	-14	-1	11	35	11	18	24			2.0
Northfield	Maximum	5	17	21	26	-13	10	18	16	25	26	35	47	48	39	50	16	14	23	55	57	-2	6	26	47	48	43	38	37			27.8
	Minimum	-19	-20	-8	-14	-24	-19	10	-9	-11	14	-1	18	21	16	11	-1	-8	-14	5	-2	-11	-18	-6	7	35	15	6	27			-0.2
St. Johnsbury	Maximum	15	18	17	19	-2	0	19	22	20	27	27	33	39	40	47	33	24	24	28	49	14	6	24	26	53	48	34	43			27.0
	Minimum	-5	-21	-10	-2	-24	-26	0	5	-16	12	-5	12	23	7	32	0	7	-18	1	14	-10	-23	-14	2	25	14	5	22			0.2
Wells	Maximum	10	10	20	20	0	12	24	10	28	22	32	42	40	40	50	32	10	18	40	48	18	10	22	40	42	42	40	38			27.1
	Minimum	-1	0	3	0	-24	-15	10	3	0	8	6	28	28	20	32	3	4	0	15	18	-9	-10	6	18	32	20	8	30			8.3
Massachusetts.																																
Amherst	Maximum	19	21	14	23	-1	26	40	28	36	30	35	43	49	40	48	24	25	30	40	47	10	12	29	43	51	45	38	35			31.4
	Minimum	-8	-22	-14	-8	-14	-10	26	2	-4	16	7	26	24	16	20	16	8	0	19	10	-2	-7	-10	14	32	22	20	30			7.7
Blue Hill	Maximum	21	21	31	31</																											







## Daily Precipitation for February, 1918—Continued from page 12.

Stations.	Watersheds.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
<i>Rhode Island.</i>																																	
Block Island ***	Coast			.03			.01	.02		.17	.03		T.			.04	T.			.46	.57		.12			.02	.62						2.09
Bristol	do			.02						.18	.02		T.			.01				*	1.20		*	.16			.69		.09				2.37
Greene	do															.41				*	1.42		.11			1.61							3.55
Hope Valley	do		.05	.15												.60				1.50		.20			1.00								3.50
Kingston	do			.15			T.			.35	.05							.07		1.45	1.05	.50				1.16		.01					4.79
Narrag'sett Pier***	do			.08	T.		T.	T.		.23	.08					.05		T.		.80	1.40	.08	.35			.86		.03					3.96
Pawtucket	do			.04			T.			*	.16					.08	.02			*	1.09		.15		*	1.02		.30					2.86
Providence***	do			.09			.01	T.	T.		.26	.02		T.		.02	.01	.02	.01		.77	.38		.14	.03	T.	.01	.98		.09			2.87
Wallum Lake	do																																
<i>Connecticut.</i>																																	
Bridgeport	Coast			.11	T.		.05			.28						T.		.05		.76	.41	T.	.28	T.			1.26		T.				3.20
Canton	Connecticut			.07			.19			.36	T.					.08				*	.95		.16			.75		.11					2.67
Colchester	Coast			.10						.10	.43	T.				.10				T.	*	1.39		T.	.10		*	1.65		T.			3.87
Cream Hill	Housatonic			.08			.20			.20	.02					.15		.05		.45	.74		.08			.65		.03					2.66
Danielson	Coast			.10			.05			.10	.10							.05		1.00		.20				1.50		T.					3.10
East Hartland	do			.15			.13			.42	T.					.14		.01		.82		.07			T.	.65							2.39
Falls Village	Housatonic			.10			.13			.39	.02					.06				1.02	.30	.05				.30	.28	.08					2.73
Hartford ***	Connecticut			.19			.11			.26	.05		T.		T.	.03	T.	.01		.59	.22	.15			.01	.75		.06					2.43
Lake Konomocoff	Coast																			3.03	.22	.23		.30	1.52								4.85
New Haven***	do			.11			.08			.23	T.		T.		.01	.01	.01		.88	.22	.23		.01		1.25		T.						3.04
New London	do			.40												*	.15		.18		*	1.70		*	.50		1.43		.10				4.46
N. Grosvenor Dale	do			.16			.07			.46	.06					.15		.04			1.42		.14			1.24							3.74
Norwalk	do			.04			.08			.10										*	.94		.08			.56							1.80
Southington	do			T.	T.			.20		.40									T.		.15	1.00	.05	.05		1.10		T.					2.95
Storrs	Coast																																
Torrington	Housatonic			.14			.24			.12	.19	.03				.12		.02			1.31		.07			.76							3.00
Voluntown	Coast			*	.08		T.			.16	.01					.08				*	1.40		*	.30		1.28		T.					3.31
Waterbury	Housatonic			.09	.03		.02	.01		.01						T.		T.		.50	T.		T.			.09	T.	.06					1.62

## Special River Rainfall Stations

<i>Maine.</i>																																	
Brownville	Saco																																
Mattawamkeag	Penobscot																																
<i>New Hampshire.</i>																																	
Franklin Junction	Merrimac						.08		.08	.05		.78		.08	.32	.12		.12			.56			T.		.17	.18	.06					2.60
Lancaster	Connecticut																																
Manchester	Merrimac																																
Sewall's Falls #	do																																
West Stewartstown	Connecticut	T.			.18	T.	.10	.20	T.		.32	T.	T.	.26		.15	T.				.25			T.		T.	.20	.10					1.76
<i>Vermont.</i>																																	
Bellow's Falls	Connecticut																																
Wells River	do						.16		.14	.36				.20			.28			.40						.64							2.18
White River Junction	do			.13	T.	.01	.10	.02	T.	.30				.03		.03	T.	.48			.68		.05			.72	T.						2.55
<i>Massachusetts.</i>																																	
Holyoke	Connecticut																																

## Daily Evaporation (inches) and Wind Movement (miles).

Gardiner, Me.	Evaporation																																
Dorchester Cen-ter, Mass.	Wind movement																																
	Evaporation																																
	Wind movement																																

| Observations taken at 6 p. m.

|| Observations taken at 7 a. m.

See temperature and precipitation data in Climatological Tables.

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations.

\*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

\* Precipitation indicated in that of following day.

† Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.; Sewall's Falls, Concord, N. H.

## Comparative Data for New England for February.

Year	Temperature.			Precipitation.			Weather.				Wind.			Year.	Temperature.			Precipitation.			Weather.				Wind.							
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.		Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	
1888....	23.9	60	-30	3.78		10	11.9	9	12	8		n.w.	9.9	58	e.	1904....	16.6	59	-43	2.39	2.23	9	12.4	13	6	10	58	n.w.	12.8	78	n.w.	
1889....	22.0	58	-44	2.32		10	16.7	8	9	10		n.w.	11.1	59	w.	1905....	17.1	54	-32	1.53	1.70	6	11.8	14	6	8	63	n.w.	13.3	68	w.	
1890....	30.3	70	-20	3.59		12	7.9	8	12			n.w.	12.4	69	n.w.	1906....	24.5	64	-35	2.51	2.07	6	11.7	14	6	8	58	n.w.	11.6	60	ne.	
1891....	28.2	63	-28	4.61		16	14.5	10	11			n.w.	12.4	55	e.	1907....	15.9	55	-37	2.94	1.85	9	21.9	12	8	55	n.w.	11.9	70	ne.		
1892....	25.9	54	-26	2.09		8	14.8	7	13			n.w.	12.3	64	ne.	1908....	20.7	69	-38	4.31	2.31	9	20.9	13	7	9	55	n.w.	11.5	84	s.	
1893....	21.7	59	-32	4.05		13	39.1	9	11	52		n.w.	13.3	69	n.w.	1909....	26.4	61	-30	5.24	2.64	9	7.9	11	7	10	45	n.w.	12.8	90	s.	
1894....	21.5	59	-42	3.05		9	24.6	9	8	11	59	n.w.	13.0	71	e.	1910....	23.4	60	-31	4.03	2.04	10	22.1	12	7	9	50	n.w.	12.6	70	ne.	
1895....	19.3	52	-27	1.05		5	11.1	12	8	8	62	n.w.	12.7	66	w.	1911....	21.2	58	-32	2.54	2.20	9	18.6	11	6	11	47	n.w.	11.8	55	se.	
1896....	23.6	52	-37	5.98		4	12	11	16	9		n.w.	14.5	58	s.e.	1912....	21.8	54	-34	2.51	2.72	5	7.8	16	7	6	61	n.w.	10.9	72	sw.	
1897....	25.1	53	-27	2.47		2	2.20	7	11	35		n.w.	11.6	70	ne.	1913....	21.9	61	-39	2	2.65	2.40	8	10.4	16	5	7	62	n.w.	11.0	60	w.
1898....	27.1	69	-38	5.20		2	1.99	10	6	13	38	n.w.	11.3	76	ne.	1914....	16.8	58	-36	2.48	2.64	7	19.5	15	6	7	62	n.w.	13.2	72	n.w.	
1899....	21.1	69	-41	3.71		14	11	27	10	52		n.w.	12.3	73	n.	1915....	28.2	61	-32	4.14	2.83	10	8.3	10	6	12	49	n.w.	11.5	59	n.w.	
1900....	23.3	68	-20	7.13	3.4	13	16.1	10	6	12	59	n.w.	14.2	78	w.	1916....	20.3	59	-34	4.17	3.04	13	22.4	10	6	13	43	n.w.	12.5	72	n.w.	
1901....	18.0	49	-23	0.96	1.99	4	9.7	15	7	6	65	n.w.	15.2	61	n.w.	1917....	18.6	54	-39	2.19	1.50	8	12.3	12	7	9	53	n.w.	12.7	72	w.	
1902....	23.8	65	-23	3.77	2.37	8	18.9	13	6	9	52	n.w.	14.8	72	ne.	1918....	18.8	62	-41	2.72	2.50	11	11.5	10	7	11	50	sw.	12.8	102	w.	
1903....	25.7	63	-37	4.03	2.05	9	17.6	12	6	10	60	n.w.	12.0	69	s.e.																	



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U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU

CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

MARCH, 1918

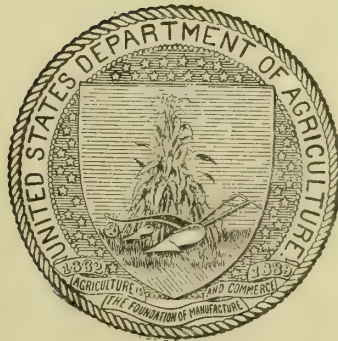
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BY

JOHN W. SMITH

METEOROLOGIST

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
APRIL 16, 1918



Departure of the Mean Temperature from the Normal, March, 1918.



Shaded portions show excess (+).  
 Unshaded portions show deficiency (-).  
 Lines show amount of excess or deficiency.



## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

Vol. XXX. BOSTON, MASS., MARCH, 1918.

No. 3.

## GENERAL SUMMARY.

The temperature, during the first half of the month, was generally below the normal, with frequent occurrence of minimum temperatures near or somewhat below zero in the northern States of the section; the last half of the month was warmer than usual. The precipitation was nearly all confined to the first 15 days, during which period it was above the normal, with considerable snowfall: during the remainder of the month none occurred, except small amounts at a few scattered stations. Owing to the gradual melting of the snow in the northern portion of the section, no spring floods occurred.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 13 stations reporting, was 29.96 inches, which was 0.02 inch below the normal for the month, and 0.08 inch below the mean for March, 1917. The highest monthly mean was 29.99 inches, at Amherst, Mass. and New Haven, Conn.; the lowest, 29.88 inches, at Eastport, Me. The highest recorded was 30.52 inches, at New Haven, Conn. on the 11th; the lowest, 29.28 inches, at Eastport, Me. on the 3d. The monthly range for the section was 1.24 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 76 stations, was 31.5°, which was 0.2° above the mean for March, 1917. During the past 30 years the average March temperature has been higher in 12, the same in 1, and lower in 17 years than that of the present month. The highest average March temperature during this time was 40.8°, in 1888; the lowest, 27.7°, in 1906. The average temperature for the several States of the section was as follows: Maine, 26.6°; New Hampshire, 28.7°; Vermont, 28.3°; Massachusetts, 35.2°; Rhode Island, 35.2°; Connecticut, 37.1°. The average temperature for the section was 1.0° above the normal for the month. The departures from the normal for the several States were as follows: Maine, -1.0°; New Hampshire, +0.6°; Vermont, +1.1°; Massachusetts, +1.7°; Rhode Island, +0.1°; Connecticut, +2.9°. The highest monthly mean was 39.4°, at New London, Conn.; the lowest, 16.6°, at Van Buren, Me. The highest recorded was 74°, at Rutland, Mass. on the 21st; the lowest, -34°, at Pittsburg, N. H. on the 16th. The greatest monthly range was 93°, at Pittsburg, N. H.; the least, 34°, at Block Island, R. I. The greatest daily range was 53°, at Bloomfield, Vt. on the 4th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 13 stations reporting, was 71 per cent, which was 2 per cent below the average for March, 1917, and 3 per cent below the normal for the month. The highest monthly average was 84 per cent, at Block Island, R. I.; the lowest, 62 per cent, at Hartford, Conn.

## PRECIPITATION.

The average for the section, as determined from the records of 78 stations, was 2.05 inches, which was 1.66 inches below the average for March, 1917. During the past 30 years the average March precipitation has been greater in 26 and less in 4 years than that of the present month. The greatest average March precipitation during this time was 6.43 inches, in 1899; the least, 0.21 inch, in 1915. The average precipitation for the several States of the section was as follows: Maine, 1.71 inches; New Hampshire, 1.70; Vermont, 1.61; Massachusetts,

2.62; Rhode Island, 2.41; Connecticut, 2.22. The average for the section was 1.79 inches below the normal for the month. The departures from the normal for the several States were as follows: Maine, -2.26 inch; New Hampshire, -1.88; Vermont, -1.25; Massachusetts, -1.31; Rhode Island, -2.12; Connecticut, -2.15. The greatest monthly amount was 3.69 inches, at Westboro, Mass.; the least, 0.74 inch, at Winslow, Me. The greatest amount in 24 hours was 1.70 inches, at Narragansett Pier, R. I. on the 10th. The average snowfall for the section was 14.1 inches, which was 1.8 inches below the average for March, 1917, and 2.5 inches above the normal for the month. During the past 30 years the average March snowfall has been greater in 9 and less in 21 years than that of the present month. The greatest average March snowfall during this time was 30.3 inches, in 1916; the least, 1.6 inches, in 1913. The average snowfall in the several States was as follows: Maine, 16.4 inches; New Hampshire, 17.8; Vermont, 19.0; Massachusetts, 11.9; Rhode Island, 5.8; Connecticut, 7.6. The average number of days with .01 inch or more of precipitation was 8, 4 less than the average for March, 1917, and 1 less than the normal number for the month.

## WIND.

The prevailing direction of the wind was from the northwest, which is the normal direction for the month, as determined from the records of the past 30 years. The greatest monthly wind movement at any station was 14,995 miles, at Blue Hill Observatory, Hyde Park, Mass.; the least, 4,992 miles, at Concord, N. H. The average hourly wind movement was 12.2 miles, which was 0.9 mile below the average for March, 1917, and 0.2 mile above the normal for the month. The highest recorded velocity was 74 miles per hour from the northwest, at Blue Hill Observatory, Hyde Park, Mass. on the 3d. This is about the usual maximum velocity for March.

## SUNSHINE AND CLOUDINESS.

The average number of clear days was 16; partly cloudy, 7; cloudy, 8, which compares with the normal for the month of 12 clear, 8 partly cloudy, and 11 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 62, which was 7 per cent above the average for March, 1917, and 8 per cent above the normal for the month, as determined from the records of the past 26 years. The greatest percentage of possible sunshine at any station was 69, at New Haven, Conn.; the least, 49, at Northfield, Vt. The greatest percentage of possible sunshine for any March during the past 26 years was 74, in 1915; the least, 36, in 1899.

## DATES OF MISCELLANEOUS PHENOMENA.

*Halos, Lunar.*—Eastport, Me., 17, 18, 25; North Bridgton, Me., 20; Franklin, N. H., Northfield, Vt., Blue Hill, Boston, Mass., Kingston, R. I., New Haven, Conn., 24; Concord, Mass., 17, 24; Block Island, 19, 24; Hartford, Conn., 21, 24.

*Thunderstorms* (dates and number of observers reporting on each): New Hampshire and Vermont—14th, 1; Massachusetts—6th, 4; 10th, 1; 12th, 1; 14th, 14. Rhode Island—5th, 1; 6th, 3; 14th, 3; 15th, 1. Connecticut—6th, 4; 14th, 11; 15th, 1.

*Halos, Solar.*—Eastport, Me., 4, 12, 14, 17, 20, 25, 30; North Bridgton, Me., Northfield, Vt., 9; Woodstock, Vt., 4; Blue Hill, Mass., 5, 9, 11, 18, 21, 30; Boston, Mass., 9, 18, 21, 25, 30, 31; Somerset, Mass., 9, 18; Block Island, R. I., 31; Hartford, Conn., 5, 6, 9, 11, 13, 15, 16, 30, 31; New Haven, Conn., 4, 5, 13, 18, 21, 30, 31.

*Auroras.*—Cornish, Me., 11; Eastport, Me., 3, 7, 11, 15; North Bridgton, Me., Blue Hill, Rockport, Mass., 3, 7; Van Buren, Me., Concord, Durham, Franklin, Pittsburg, Plymouth, N. H., Northfield, Vt., Brockton, Concord, Leominster, Rutland, Westboro, Mass., Bristol, Kingston, Pawtucket, R. I., Bridgeport, Falls Village, New Haven, Conn., 7; Berlin, N. H., 7, 9; Bethlehem, N. H., 7, 13; Hanover, Newton, N. H., 3, 7, 15; Keene, N. H., Woodstock, Vt., 8; Burlington, Vt., 3, 7, 8, 15; Enosburg Falls, Vt., 8, 15; Fall River, Mass., 14; Somerset, Mass., 3, 6, 8; Springfield, Mass., 15; Hartford, Conn., 3, 7, 8.



## Climatological Data for March, 1918.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.							Precipitation, in inches.				No. of days.				Observer.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.	Cloudy.		Prevailing direction of wind.
Maine.																				
Bar Harbor	Hancock	20	32	30.8	-0.4	59	31	0	4	36	2.20	-3.53	0.60	18.5	10	19	6	6	nw.	Mount Desert Nurseries.
Cornish	York	778	63	31.2	+1.9	67	31	-7	16	47	1.32	-2.94	0.60	11.5	5	18	5	8	nw.	T. H. West.
Eastport	Washington	53	46	26.4	-2.5	57	31	0	4	29	2.17	-2.11	0.73	23.9	13	13	6	12	nw.	U. S. Weather Bureau.
Farmington	Franklin	450	21	26.4	-3.8	58	31	-10	8	41	1.91	-2.44	0.78	18.0	9	17	8	6	nw.	State Normal School.
Gardiner	Kennebec	163	26	27.2	-3.1	60	31	7	8	41	1.54	-2.52	0.67	16.0	8	16	4	11	w.	Samuel D. Soule.
Greenville	Piscataquis	1,140	14	23.3		56	21	-10	8	35	2.19	-1.57	0.90	22.0	9	13	8	10		U. S. Weather Bureau.
Houlton	Aroostook	362	16	22.4		50	30	-27	8	50	1.70	-0.68	0.60	17.0	5	17	8	6	nw.	Bangor & Aroostook RR.
Lewiston	Androscoggin	185	35	27.6	-1.2	64	31	2	12	36	1.35	-3.24	0.70	13.0	7	23	0	8	nw.	Union Water Power Co.
Madison	Somerset	257	15	24.8		58	31	-10	8	40	1.82	-2.48	0.85	19.2	7	21	4	6	nw.	William Jardine.
Millinocket	Penobscot	386	15	24.6		57	30	-22	8	50	1.94	-1.69	0.59	21.2	7	20	1	10	w.	Great Northern Paper Co.
North Bridgton	Cumberland	450	25	29.0	+0.1	63	31	3	16	39	1.34	-2.92	0.66	13.0	7	17	9	5	n.	C. L. Chadbourn.
Orono	Penobscot	129	49	27.8	+0.2	62	22	-11	8	53	1.65	-2.40	0.70	16.5	5	19	4	8	nw.	Maine State College.
Patten	do	550	16																	Bangor & Aroostook RR.
Portland	Cumberland	99	47	31.0	-1.0	67	31	6	16	30	1.93	-1.82	1.12	13.4	8	13	8	10	nw.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	9	18.2		52	31	-25	8	46	1.80	-0.43	0.40	18.0	6	20	7	4	n.	E. M. Libby.
Rumford	Oxford	505	25	27.8	+0.3	58	31	-1	12	32	1.39	-2.23	0.67	24.4	9	21	5	5	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	14	16.6		55	21	-22	8	46	2.17	-0.45	0.72	18.8	8	20	4	7	nw.	Rev. J. M. Thomas.
Winslow	Kennebec	90	23	28.7	-1.2	70	31	-7	8	41	0.74	-3.12	0.28	6.2	6	19	8	4	w.	Hollingsworth & Whitney
New Hampshire.																				
Alstead Center	Cheshire	1,120	14	31.7	+2.4	68	31	-2	11	33	1.82	-1.67	0.70	21.0	5	20	5	6	nw.	Frank Dewing.
Berlin	Coos	1,090	21	25.6*		60*	31	-9*	15	38*	2.03	-1.41	0.90	17.4	12	11	12	8	nw.	Brown Company.
Bethlehem	Grafton	1,470	26	25.8	-0.7	59	21	-3	11	34	1.28	-2.82	0.50	12.8	8	16	6	9	w.	Benjamin Tucker.
Concord	Merrimack	350	57	31.6	+0.1	65	31	2	8	38	1.26	-2.14	0.67	15.3	7	22	3	6	nw.	U. S. Weather Bureau.
Durham	Stafford	88	23	31.5	0.0	63	31	-4	8	43	1.21	-2.25	0.54	9.0	4	22	2	7	w.	N. H. Agr. College.
Franklin	Merrimack	440	19	29.8	-1.3	64	31	-5	16	36	2.31	-1.30	1.00	20.1	7	13	6	12	w.	Gilbert Hodges.
Glencliff	Grafton	1,650	5	26.7		60	21	-3	11	41	2.35	-1.30	0.72	22.5	8	16	7	8	nw.	State Sanatorium.
Grafton	do	863	32																	P. R. Kimball.
Hanover	do	603	84	29.2	+1.8	62	31	-8	16	44	1.44	-1.17	0.72	16.1	7	6	13	12	s.	Dartmouth College.
Keene	Cheshire	506	33	32.3	+1.7	67	31	-4	16	42	1.95	-1.67	0.73	14.5	6	16	8	7	sw.	Samuel Wadsworth.
Newton	Rockingham	126	30	31.5	-0.3	67	31	-6	8	46	1.80	-2.01	0.64	17.5	6	15	9	7	nw.	W. C. Gale.
Pittsburg	Coos	1575	25	20.3		59	22	-34	16	49	1.74	-2.38	0.95	32.0	5	12	7	12	w.	Conn. Valley Lumber Co.
Plymouth	Grafton	500	30	28.6	+1.7	60	31	-1	12	44	1.26	-2.38	0.51	15.5	9	21	2	8	w.	Mrs. Hattie G. Trow.
Vermont.																				
Bloomfield	Essex	404	11	25.5		59	21	-22	11	53	1.28	-1.44	0.43	18.5	11	13	14	4	w.	Lyman Falls Power Co.
Burlington	Chittenden	404	11	27.8	+0.5	60	31	-5	11	35	1.86	+0.03	0.82	21.6	11	7	10	14	n.	U. S. Weather Bureau.
Cavendish	Windsor	910	15	29.6		60	31	-8	8	47	1.08	-1.67	0.48	20.2	8	21	1	9		Colonial Power Co.
Chelsea	Orange	840	23	25.2	+0.3	58	31	-13	16	47	1.89	-1.21	0.70	22.0	8	11	8	12	n.	W. F. Dewey.
Cornwall	Addison	517	25	30.4	+1.3	60	31	-5	11	38	2.17	+0.09	1.20	21.0	8	16	10	5	n.	C. H. Lane.
Enosburg Falls	Franklin	601	27	27.3	-0.1	61	31	-19	11	43	0.94	-2.20	0.47	19.0	6	19	7	5	nw.	J. W. Pomeroy.
Hyde Park	Lamoille	576	6	27.8		61	21	-8	4	43	2.61	-0.80	0.80	31.0	8	12	8	11	nw.	A. V. Wiswell.
Northfield	Washington	876	32	27.5	+1.3	60	31	-4	11	44	1.43	-1.36	0.80	15.8	9	4	18	9	n.	U. S. Weather Bureau.
Rutland	Rutland	562	2	28.4		64	21	-11	11	40	1.44	-0.47	0.47	16.1	9	15	10	6	nw.	George H. Ross.
Somerset	Windham	2,096	7	27.8		67	21	-3	10	40	2.79	-0.65	0.65	17.9	13	16	10	5	nw.	Power Construction Co.
St. Johnsbury	Caledonia	711	25	28.2	-1.7	60	31	-11	11	45	1.78	-1.01	0.68	20.3	9	13	11	7	n.	Fairbanks Museum.
Vernon	Windham	310	3	32.9	+1.9	67	31	-6	16	46	1.61	-1.94	0.58	12.2	7	15	7	9	nw.	Conn. River Power Co.
Wells	Rutland	750	27	28.4	+0.9	58	21	-6	11	28	1.34	-1.96	0.52	12.0	6	11	14	6	sw.	E. R. Pember.
Woodstock	Windsor	700	26	29.4	+1.7	58	31	-9	11	43	2.07	-1.04	0.93	18.0	7	17	5	9	n.	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	29	34.5	+2.7	69	31	-8	11	37	2.91	-0.96	0.96	9.5	8	20	7	4	nw.	Mass. Agr. College.
Blue Hill	Norfolk	640	34	34.2	+1.9	66	31	6	11	30	3.68	-0.72	1.20	17.0	10	11	10	10	sw.	Blue Hill Observatory.
Boston	Suffolk	124	45	36.7	+1.7	69	31	11	11	29	3.19	-0.89	1.31	12.8	9	12	10	9	sw.	U. S. Weather Bureau.
Chestnut Hill	do	124	38	36.4*	+0.5	67	31	13*	11	38*	1.98	-2.36	0.64	10.8	7	21	0	10		Met. Water Board.
Clinton	Worcester	370	22	35.0		63	21	0	8	40	2.63	-0.98	1.15	14.0	7					Do.
Concord	Middlesex	139	28	34.4	+0.2	68	31	-2	8	44	2.88	-0.55	1.18	12.4	7	9	13	9	sw.	Fred A. Tower.
Fall River	Bristol	200	52	36.1	+0.1	64	21	10	11	30	2.46	-2.29	1.03	8.0	9	11	17	3	nw.	C. V. S. Remington.
Fitchburg	Worcester	550	35	34.7	+2.9	68	31	2	8	38	1.97	-1.88	0.82	14.0	7	19	5	7	sw.	Dr. A. P. Mason.
Framingham	Middlesex	160	33	36.5	+2.3	66	31	1	8	40	2.43	-2.00	1.17	10.5	7					Met. Water Board.
Lawrence	Essex	61	34	33.6	+1.0	66	31	-2	8	42	2.62	-1.34	0.95	14.5	9	12	14	5	w.	Essex Company.
Lowell	Middlesex	100	33	34.4	+1.9	61	31	-4	8	44	2.78	-1.38	1.06		7					Props. Locks & Canals.
Nantucket	Nantucket	47	32	34.2	-2.6	62	21	14	11	31	2.72	-1.56	0.98	7.5	8	10	9	12	sw.	U. S. Weather Bureau.
New Bedford	Bristol	88	106																	City Engineer.
Plymouth	Plymouth	50	33	33.6		62	31	6	11	36	2.44	-2.23	1.33	7.0	7	21	1	9	w.	Miss L. B. Knapp.
Provincetown	Barnstable	40	31	34.8	-0.8	57	31	12	4	27	3.17	-0.76	0.95	9.5	8	22	1	8	sw.	Gideon Bowley.
Rockport	Essex	25	16	33.6		63	31	7	16	30	1.40	-0.63	1.25	9	15	8	8	nw.	U. S. C. G. Station.	
Rutland	Worcester	1,160	16	33.6		74	21	3	10	44	2.21	-1.05	1.28	8	18	3	10	w.	State Sanatorium.	
Springfield	Hampden	199	8	37.6	+4.5	71	31	-4	11	49	2.18	-1.55	1.06	5.2	8	19	5	7	sw.	U. S. Army.
Turners Falls	Franklin	200	32	36.9	+3.3	71	21	5	8	42	3.46	+0.12	1.14	16.0	7	18	4	9		Turners Falls Co.
Westboro	Worcester	298	44	37.6	+3.6	69	31	4	8	35	3.69	-0.55	1.28	14.0	9					Miss E. W. Newcomb.
Williamstown	Berkshire	711	37	32.6	+3.6	66	21	1	11	36	2.37	-0.71	0.							



## Daily Precipitation for March, 1918.

Stations.	Watersheds.	Day of month.																															Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Maine.																																		
Ashland	St. John						.30	.20	.20	.20	.60	.10	.30	.05		.20							T.											2.20
Bar Harbor	Coast	.05																															1.32	
Cornish	Saco	.15					T.	.10		T.	.60		.15		.32																		2.17	
Eastport***	Coast	T.	.02	.06			.56		.05	T.	.73	.12	.30	.02	.10	.15							.01					T.	.04	.01	T.		2.28	
Eustis	Kennebec	.10		.15	T.		.50	T.	.01	T.	.78	.08	.25	.15	.06	.20				T.													1.91	
Farmington	do	.08					.30	.08	.07		.78		.30	.07	.12	.11																	1.64	
Gardiner	do	.21					.14		.09		.67	T.	.17	.06	.11	.09						T.	T.										2.19	
Greenville***	Penobscot	.02	T.	.30		T.	.30		.02	T.	.90	T.	.30	.05	.20	.10								T.									1.70	
Houlton	St. John			.20			.60		.10				.30		.50																		1.35	
Lewiston	Androscoggin	.14					.05	.08	T.		.70		.11		.22	.05																	1.82	
Madison	Kennebec	.04					.17	T.				.85		.27		.49																	1.94	
Millinocket	Penobscot		.09	T.		.29	.07			.26	.33		.33		.57																		1.34	
North Bridgton	Saco	.11					.06	.10			.66	.12	.20		.09																		1.65	
Orono	Penobscot						.25			.20		.70		.30		.20																		
Patten	do																																	
Portland***	Coast	.31				.09	.06	.07	T.	.03	1.09		.09		.19																		1.93	
Presque Isle	St. John																																	
Rumford	Androscoggin	.05	T.	T.		T.	.17	.05	.01	.07	.60		.14		.27	.03				T.													1.39	
Van Buren	St. John			.15			.36			.08	.08		.08	.30		.72			.40														2.17	
Winslow	Kennebec	.04					.28	.09			.05		.18		.10																		0.74	
New Hampshire.																																		
Alstead Center	Connecticut	.44				.08		.23	T.		.70	T.	T.		.37																		1.82	
Berlin	Androscoggin	.05	.18			.19	.10	.10	.02	.56	.34		.17		.28								T.										2.03	
Bethlehem	Connecticut	.10		.10			.05	.10		.03	.50		.20			.20																	1.28	
Brookline	Merrimack	.60			.10		.05	.15			.70		T.		.10																		1.70	
Concord***	do	.20		T.	T.	.04	T.	.20	T.	.14	.54		.01		.13	T.																	1.26	
Durham	do	.54					.07	.17				.43																					1.21	
Franklin	do	.42		T.		.06	T.	.32	T.	.03	1.00		.13		.35																		2.31	
Glenciff	do	.19		.10		.08		.45			.72		.20			.60																	2.34	
Grafton	do																																	
Hanover	Connecticut	.09		T.		.04	T.	.28	T.		.72		.02		.25	.04																	1.44	
Keene	do	.50				.15	.07	.23			.73		T.		.27																		1.95	
Newton	Merrimack	.64				.16	.03	.15			.62		T.		.20																		1.80	
Pittsburg (a)	Connecticut			.30			.35		.05		.09	T.				.95																	1.74	
Pittsburg (b)	do	T.		.71			.64	T.		1.07	T.		.40	T.	.17	.18	.10	.15															3.42	
Plymouth	Merrimack	.20		T.		.05	.04	.13	.03		.51		.10		.18	.02																	1.21	
Vermont.																																		
Bloomfield	Connecticut	.02		.12			.15	.06	.01	.01	.43	.01		.12	.05	.30																	1.28	
Burlington***	Champlain	.01		.03		.03	.17	.10	T.	.10	.72		.01	.01	.55	.13																	1.86	
Cavendish	Connecticut	.15		.01		.03	.01	.15			.24		.01		.48	T.																	1.08	
Chelsea	do	.12		.15			.06	.04			.70		.10		.60	.12																	1.89	
Cornwall	Champlain	.20	.10			T.	.35	.12		*	1.20				*	.20																	2.17	
Enosburg Falls	do	.02	.04	.04			.47	.07			.30		T.		T.	T.																	0.94	
Hyde Park	do	.04		.15			.22	.14			.80		.08		.21	.37																	2.01	
Northfield***	Champlain	.05		.06		.04	.05	.11		.18	.62		T.		.26	.02																	1.43	
Rutland	do	.22	.02	T.		.06	.14	.09	.08		.07	.17				.19																	1.44	
Somerset	Connecticut																																	
St. Johnsbury	do	.06		.05			.16	.16	T.	T.	.68	.02	.15		.15	.35																	1.78	
Vernon	do			.16			.39	.12		.58	.04		.17		.24																		1.61	
Wells	Champlain	.26				.13	.14	.13			.52		T.		.17																		1.34	
Woodstock	Connecticut	.23				T.	.06	.25			.93		.02		.38	.20																	2.07	
Massachusetts.																																		
Amherst	Connecticut	.96			.06	.08	.19	.21		.40	.65				.36																		2.91	
Ashland	Merrimack	.11			.21			.47			1.23		.06		.41																		2.54	
Bakers Bridge††	do	.85			.16	.08	.28				1.18		T.		.22																		2.77	
Bedford	do	.77			.07	.09	.27			T.	.92	.10	T.	.05	.25																		2.52	
Blue Hill	Coast	1.20			T.	.24	.06	.52		.03	1.12	.04	.06	T.	.36	.05																	3.68	
Boston***	do	1.15			.15	.08	.05	.36		.20	.80		.08		.32																		3.19	
Brockton	Coast	.94			.21	.04	.20				.84	.06	T.		.07	.09																	2.45	
Chestnut Hill	do	.10			.33		.38	.12		.64	.11				.30																		1.98	
Clinton	Merrimack	.17		T.		.24	.09	.64			1.15		.02		.42																		2.63	
Concord	do	.85			.16	.08	.39				1.17	.01	T.		.22	T.																	2.88	
Fall River	Coast	.14		.06	.10	.16	.40			.15	1.03		T.		.40																		2.46	
Fitchburg	Merrimack	.51			.15	.08	.22				.82		T.		.13	.06																	1.97	
Frammingham	do	.13			.19	.11	.45				1.17		.03		.35																		2.43	
Haverhill	do	.69			.15	T.	.27			T.	<																							

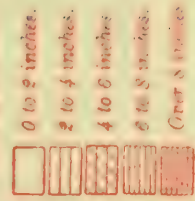


## Daily Temperatures for March, 1918.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean		
Maine.																																		
Bar Harbor.....	Maximum	37	39	40	36	36	35	28	31	40	36	28	33	40	36	35	29	48	48	48	41	54	46	37	41	43	39	43	47	47	55	59	40.5	
	Minimum	24	18	22	0	24	27	13	0	20	15	6	10	33	20	15	3	28	31	25	19	31	34	25	20	23	29	31	30	22	26	28	21.0	
Cornish.....	Maximum	35	49	40	36	47	40	31	35	46	31	37	27	50	34	40	40	54	52	51	56	63	69	46	52	51	45	50	53	55	63	67	46.3	
	Minimum	24	7	16	-2	26	30	9	0	14	13	-1	3	11	23	8	-7	13	28	16	20	25	27	26	11	21	23	22	18	20	22	31	16.0	
Eastport.....	Maximum	27	35	35	29	30	32	17	28	34	21	22	34	35	29	28	26	28	36	34	37	52	39	35	38	38	34	37	44	37	46	57	34.2	
	Minimum	21	18	6	0	26	17	8	5	20	10	4	11	23	21	2	1	21	26	19	22	29	31	22	18	27	30	28	28	25	28	32	18.7	
Farmington.....	Maximum	34	40	34	30	35	34	31	31	38	24	28	18	38	30	83	31	49	44	45	46	54	45	35	45	45	43	40	52	50	55	58	39.2	
	Minimum	22	8	14	2	21	24	8	-10	0	9	0	-8	3	10	5	-5	13	22	25	24	23	23	22	13	12	24	28	21	17	20	30	13.5	
Greenville.....	Maximum	31	31	30	27	34	28	15	23	28	14	18	17	29	26	22	26	42	38	38	47	56	47	44	37	46	39	33	42	50	52	35	34.4	
	Minimum	16	7	6	-5	14	15	3	-10	-7	3	-5	-1	16	7	-2	-3	17	21	18	20	31	31	14	12	17	24	25	23	15	28	32	12.2	
Millinocket.....	Maximum	31	33	30	25	55	28	19	28	32	23	22	19	32	30	25	28	42	34	43	43	52	47	41	41	47	54	89	49	61	57	52	37.2	
	Minimum	14	10	5	-3	17	17	3	-22	-10	6	3	-6	17	1	14	-1	6	26	13	13	30	21	18	17	17	21	28	28	14	25	27	11.9	
Orono.....	Maximum	37	34	37	37	33	34	23	25	34	33	25	20	34	36	24	25	45	45	38	40	59	62	40	40	42	44	39	49	51	55	56	38.7	
	Minimum	21	12	28	-6	20	23	9	-11	9	10	5	-2	20	13	11	0	21	27	24	20	25	34	21	19	17	28	27	19	24	30	36	16.9	
Portland.....	Maximum	32	41	39	32	38	35	24	35	40	22	28	33	42	32	32	36	55	43	38	40	41	42	40	48	40	42	39	49	44	54	37	39.5	
	Minimum	25	19	13	10	28	24	11	8	22	12	6	18	30	27	7	6	27	32	28	28	27	31	27	25	28	29	27	25	30	28	43	22.6	
Presque Isle.....	Maximum																																	
	Minimum																																	
Rumford.....	Maximum	32	39	34	30	37	36	20	33	32	19	26	22	38	32	30	32	49	36	44	52	54	50	32	40	42	42	36	46	50	54	58	38.0	
	Minimum	23	10	10	6	26	21	4	1	14	10	-2	-1	11	18	6	2	20	30	26	22	28	26	24	20	26	25	26	24	28	32	32	17.6	
Van Buren.....	Maximum	29	29	28	12	24	21	24	17	25	15	15	16	24	29	28	16	21	29	29	42	55	46	37	34	42	37	36	38	45	45	47	30.4	
	Minimum	-5	-15	8	-10	5	1	-10	-22	-7	-3	-5	-21	11	-17	-3	-6	-1	-5	-2	-4	20	21	13	3	13	7	24	27	5	28	30	2.7	
New Hampshire.																																		
Alstead Center.....	Maximum	32	37	40	30	45	38	28	37	34	28	25	37	47	36	34	32	47	46	50	50	58	55	48	44	46	40	33	45	52	60	68	41.9	
	Minimum	8	17	17	2	27	16	11	20	6	-2	15	31	26	7	0	27	27	28	26	35	34	24	20	30	28	22	13	26	40	35	21.5		
Bethlehem.....	Maximum	31	36	33	25	36	32	25	31	29	21	18	23	36	29	21	29	46	37	44	54	59	49	37	36	46	36	28	38	46	48	54	36.0	
	Minimum	22	9	10	-4	19	19	9	7	19	5	-8	5	18	20	-4	-5	25	20	18	23	30	31	17	14	21	25	22	12	18	28	35	15.5	
Concord.....	Maximum	33	43	43	34	45	39	28	40	37	25	30	23	35	33	33	37	56	42	45	58	59	59	36	47	53	44	36	49	55	59	65	43.2	
	Minimum	25	10	13	10	28	27	4	2	25	10	6	9	16	38	3	5	22	28	21	25	29	31	28	25	26	30	26	21	24	25	20	20.0	
Franklin.....	Maximum	35	44	41	34	47	40	33	51	43	33	30	31	44	36	33	36	53	48	54	58	60	54	48	41	42	51	42	37	47	54	53	44.1	
	Minimum	29	0	1	-1	22	32	14	0	7	16	0	0	16	26	38	31	36	51	41	52	54	61	48	42	45	50	38	36	46	56	58	62	41.8
Hanover.....	Maximum	36	42	43	30	41	37	28	39	36	25	26	33	48	33	31	36	51	44	52	54	61	48	42	45	50	38	36	46	56	58	62	41.8	
	Minimum	24	5	12	-0	25	23	12	6	14	10	-4	5	27	26	5	-8	14	25	17	27	21	27	24	18	22	24	25	13	18	22	30	16.5	
Keene.....	Maximum	35	43	42	33	45	41	31	41	38	32	30	42	47	38	34	38	54	50	57	54	64	60	49	44	45	54	43	41	49	50	60	45.7	
	Minimum	31	8	22	2	26	30	17	3	17	10	4	5	30	29	11	-4	17	20	20	22	26	32	26	15	25	28	19	15	20	22	28	18.9	
Plymouth.....	Maximum	35	49	41	34	42	32	29	36	32	20	4	5	30	29	11	-4	17	20	20	22	26	32	26	15	25	28	19	15	20	22	28	18.9	
	Minimum	30	14	17	7	22	27	17	10	8	11	4	-4	10	22	5	3	49	5	28	12	18	19	24	26	20	19	29	26	19	17	20	26	16.6
Vermont.																																		
Burlington.....	Maximum	26	42	38	32	31	26	16	39	32	22	18	45	44	32	32	35	45	33	39	49	50	55	32	38	42	34	28	42	50	53	60	37.3	
	Minimum	16	16	9	3	26	14	4	5	16	5	-5	16	23	22	2	0	28	20	22	24	30	33	20	25	26	21	21	24	32	40	18.5		
Enosburg Falls.....	Maximum	32	35	39	34	34	29	29	38	29	21	44	44	34	32	34	46	41	44	57	50	51	40	39	44	35	30	32	52	53	61	39.5		
	Minimum	18	10	11	-4	20	14	8	-4	12	9	-19	1	24	18	-4	-2	24	20	18	26	27	22	24	21	27	18	19	19	21	30	15.1		
Northfield.....	Maximum	32	41	39	32	36	40	25	37	30	21	21	47	45	21	30	33	47	47	55	58	58	32	39	46	34	31	42	52	55	60	40.0		
	Minimum	14	6	7	-4	26	16	6	3	17	8	-4	3	23	21	-3	2	21	21	14	25	22	28	22	15	21	26	16	12	17	24	31	14.7	
St. Johnsbury.....	Maximum	36	42	40	31	38	39	28	39	36	26	25	29	40	35	30	34	51	45	50	56	58	56	52	51	51	45	34	45	53	53	60	42.0	
	Minimum	26	1	16	8	25	24	13	4	18	10	-11	1	18	18	5	-11	11	24	14	22	22	26	23	14	18	19	26	13	15	23	28	14.4	
Wells.....	Maximum	28	34	33	30	38	36	20	30	30	28	18	40	40	36	30	28	42	40	42	50	58	55	48	36	45	40	32	36	46	52	56	38.0	
	Minimum	20	10	18	2	26	15	15	6	15	5	-6	15	28	26	10	0	26	22															



Scale of Shadles.





Stations.	Watersheds.	Day of month.																																Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
<i>Rhode Island.</i>																																		
Block Island ***	Coast	.01			.06	.33	.08	.11		.33	1.32		.01		.24								.01			T.	.04						2.54	
Bristol	do	.02				.18	.05	.44		*	1.07				.36												.11						2.23	
Greene	do					.32		.32			.96				.32																		1.92	
Hope Valley	do																																	
Kingston	do	.15			.15		.14	.20		.05	1.60				.43												T.						2.72	
Narrag sett Pier***	do	.05			.34	.09	.30			T.	1.70	T.	.02		.15	.10										T.							2.78	
Pawtucket	do	.19			.11	.14	.49			*	1.19		T.		.28													.03					2.43	
Providence **	do	.11			.10	.04	.05	.27		.31	.65		T.		.19	T.											.05						1.77	
Wallum Lake	do																																	
<i>Connecticut.</i>																																		
Bridgeport	Coast	.02			T.	.40	T.	.43		.06	.47		.04		.51	T.																	1.93	
Canton	Connecticut	.38			.12		.08	.48		.98	.08				.62																		2.74	
Colchester	Coast	T.					.50	.47	1.10		T.			.30	.24												T.						2.61	
Cream Hill	Housatonic	.55					.20	.50		*	.60		T.		.40	.05																	2.30	
Danielson	Coast								.40			.20				.10	.25											.05					1.00	
East Hartland	do				.04		.08	.43		1.13	.04			.50	.43																		2.65	
Falls Village	Housatonic	.50			.05		.15	.31		.70	.30				.52																		2.53	
Hartford **	Connecticut	.13			.18		.05	.50		.23	1.00		T.		.48						T.							.01					2.58	
Lake Konomocoff.	Coast			.34	.09		.10			1.42						.39																	2.34	
New Haven***	do	.01			.29		.03	.12	.43		.27	.78		.02		.37																		

<i>Maine.</i>															
Brownville	Saco														1.70
Mattawamkeag	Penobscot														
<i>New Hampshire.</i>															
Franklin Junction	Merrimac	.30		T.		.20			.50	T.		T.	T.		1.00
Lancaster	Connecticut	T.	.13			.34	.07		T.	.64	.26		.24	.38	2.06
Manchester	Merrimac	.44	.09			.16	T.	.13	.20		.55	.31	.01	T.	2.19
Sewall's Falls &c.	do	.33		.03		.03		.36			.45	.10	.03	.28	1.58
West Stewartstown	Connecticut	T.	T.	.20	T.	.03	.60	T.	T.	.10	.85	.20	1.00	.40	3.55
<i>Vermont.</i>															
Bellow's Falls	Connecticut	.40				.05	T.	.14	.07		.74	.33		T.	2.27
Wells River	do				.18			.24			.36	.28		.16	1.40
White River Junction	do	.15	.03	T.	T.	.10	.02	.27	.15	.01	.56	.30		.04	1.96
<i>Massachusetts.</i>															
Holyoke	Connecticut	1.24	.03			.08	.12	.27	.15		1.05	.05		.32	3.40

[illegible]

See temperature and precipitation data in Climatological Tables.

\* Precipitation indicated in that of following day.

\* Precipitation indicated in that of following day.

†† Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton

Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.; Sewall's Falls, Concord, N. H.

Year	Temperature.			Precipitation.			Weather.				Wind.			Year.	Temperature.			Precipitation.				Weather.				Wind.					
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.		Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888.....	28.9	63	-23	5.59	.....	12	26.3	10	11	10	.....	nw.	13.3	72	e.	1904.....	30.2	71	-23	2.79	2.34	10	8.4	12	7	12	54	nw.	10.8	61	w.
1889.....	35.5	72	-6	2.46	.....	9	5.6	8	8	14	.....	ne.	12.9	72	ne.	1905.....	31.4	82	-27	2.48	1.88	8	4.6	15	8	9	64	nw.	8.9	49	nw.
1890.....	32.5	73	-22	6.28	.....	15	22.8	8	10	13	.....	nw.	11.4	60	ne.	1906.....	27.7	58	-27	3.10	3.20	11	21.4	13	8	10	67	nw.	11.5	66	se.
1891.....	31.6	63	-22	4.68	.....	10	12.6	11	8	12	.....	nw.	13.8	70	ne.	1907.....	32.7	88	-32	2.04	2.00	9	10.4	13	8	10	54	nw.	10.4	77	nw.
1892.....	29.7	61	-16	3.20	.....	9	14.2	14	8	9	.....	nw.	14.0	77	ne.	1908.....	33.1	77	-22	2.77	2.15	12	7.4	10	9	12	53	nw.	11.3	70	sw.
1893.....	29.7	64	-25	3.33	.....	9	6.4	11	8	12	52	nw.	11.8	61	nw.	1909.....	31.2	81	-22	3.36	3.00	10	9.1	14	7	10	56	nw.	12.3	87	se.
1894.....	34.3	79	-13	1.49	.....	9	4.6	9	13	9	40	sw.	11.0	54	nw.	1910.....	37.7	63	-17	1.44	2.30	6	1.7	16	8	7	61	nw.	10.0	66	s.
1895.....	30.2	60	-18	2.66	.....	11	9.7	12	8	11	44	nw.	11.9	65	nw.	1911.....	29.6	68	-20	3.64	1.75	11	13.8	15	7	9	60	nw.	12.3	70	nw.
1896.....	27.9	66	-20	6.15	4.36	13	24.0	10	8	13	38	nw.	16.3	72	nw.	1912.....	30.0	66	-28	5.53	3.58	10	9.7	16	6	9	57	nw.	11.6	79	s.
1897.....	32.4	66	-28	3.63	1.50	11	11.0	9	6	16	37	nw.	12.6	58	nw.	1913.....	37.0	76	-36	5.06	2.66	13	1.6	11	6	14	47	sw.	13.0	64	s.
1898.....	38.4	69	-12	2.08	1.33	9	4.7	12	8	11	48	s.	10.1	72	nw.	1914.....	32.0	74	-15	4.11	5.72	10	10.6	11	8	12	45	nw.	12.2	86	se.
1899.....	29.9	65	-19	6.43	4.36	16	24.8	8	7	16	31	nw.	12.7	78	w.	1915.....	30.7	62	-10	0.21	0.55	3	1.7	18	8	5	74	nw.	12.7	71	nw.
1900.....	27.8	59	-30	5.17	4.30	8	16.6	15	9	7	62	nw.	13.0	79	s.	1916.....	25.1	74	-23	2.83	1.90	11	30.3	16	6	9	59	nw.	12.1	67	ne.
1901.....	31.5	64	-24	5.43	4.65	12	7.4	8	8	15	46	nw.	12.0	55	s.	1917.....	31.3	65	-18	3.71	2.13	12	15.9	13	7	11	55	nw.	13.1	69	se.
1902.....	38.8	69	-6	5.87	2.69	13	13.3	11	8	12	44	nw.	12.9	72	ne.	1918.....	31.5	74	-34	2.05	1.70	8	14.1	16	7	8	62	nw.	12.2	74	nw.
1903.....	40.8	89	-17	5.94	3.43	11	2.1</																								



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WEATHER BUREAU

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# CLIMATOLOGICAL DATA

NEW ENGLAND SECTION

APRIL, 1918

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BY

JOHN W. SMITH

METEOROLOGIST

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BOSTON, MASS.  
WEATHER BUREAU OFFICE

MAY 21, 1918



Departure of the Mean Temperature from the Normal, April, 1918.





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

VOL. XXX.

BOSTON, MASS., APRIL, 1918.

No. 4.

## GENERAL SUMMARY.

Generally, seasonable conditions prevailed. The temperature averaged slightly above the normal in all of the States of the section. The precipitation, however, was somewhat below the normal, except in Connecticut, Rhode Island and southeastern Massachusetts, where it was near or slightly above the normal. The only snowfall of consequence was on the 12-13th, when more than three inches fell over the greater portion of the section, and from 8 to 12 inches in some localities, where it was the heaviest storm of the winter.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 13 stations reporting, was 30.05 inches, which was 0.08 inch above the normal for the month, and 0.11 inch above the mean for April, 1917. The highest monthly mean was 30.08 inches, at Burlington and Northfield, Vt.; the lowest, 30.03 inches, at Block Island, R. I. The highest recorded was 30.67 inches, at Eastport, Me. on the 7th; the lowest, 29.37 inches, at the same station on the 22d. The monthly range for the section was 1.30 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 77 stations, was 44.1°, which was 2.8° above the mean for April, 1917. During the past 30 years the average April temperature has been higher in 15 and lower in 15 years than that of the present month. The highest average April temperature during this time was 48.7°, in 1910; the lowest, 40.0°, in 1907. The average temperature for the several States of the section was as follows: Maine, 41.8°; New Hampshire, 42.2°; Vermont, 42.5°; Massachusetts, 46.1°; Rhode Island, 45.1°; Connecticut, 46.9°. The average temperature for the section was 0.9° above the normal for the month. The departures from the normal for the several States were as follows: Maine, +1.3°; New Hampshire, +0.7°; Vermont, +0.8°; Massachusetts, +0.8°; Rhode Island, +0.1°; Connecticut, +1.2°. The highest monthly mean was 49.4°, at Worcester, Mass.; the lowest, 36.6°, at Van Buren, Me. The highest recorded was 80°, at Bridgeport, Conn. on the 2d, Amherst and Worcester, Mass. on the 30th; the lowest, 5°, at Patten, Me. on the 18th. The greatest monthly range was 70°, at Patten, Me.; the least, 30°, at Block Island, R. I. The greatest daily range was 65°, at Patten, Me. on the 18th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 13 stations reporting, was 70 per cent, which was 4 per cent below the average for April, 1917, and 1 per cent below the normal for the month. The highest monthly average was 88 per cent, at Block Island, R. I.; the lowest, 63 per cent, at Hartford, Conn.

## PRECIPITATION.

The average for the section, as determined from the records of 76 stations, was 2.83 inches, which was 0.31 inch above the average for April, 1917. During the past 30 years the average April precipitation has been greater in 17 and less in 13 years than that of the present month. The greatest average April precipitation during this time was 6.80 inches, in 1901; the least, 1.02 inch, in 1892. The average precipitation for the several States of the section was as follows: Maine, 2.24 inches; New Hampshire, 2.18; Vermont, 1.88; Massachusetts,

3.45; Rhode Island, 4.53; Connecticut, 3.65. The average for the section was 0.02 inch below the normal for the month. The departures from the normal for the several States were as follows: Maine, -0.74 inch; New Hampshire, -0.55; Vermont, -0.51; Massachusetts, -0.07; Rhode Island, +0.67; Connecticut, -0.02. The greatest monthly amount was 5.60 inches, at Kingston, R. I.; the least, 0.91 inch, at Enosburg Falls, Vt. The greatest amount in 24 hours was 3.25 inches, at Bar Harbor, Me. on the 21-22d. The average snowfall for the section was 3.6 inches, which was 0.9 inch below the average for April, 1917, and 0.1 inch above the normal for the month. During the past 30 years the average April snowfall has been greater in 15 and less in 15 years than that of the present month. The greatest average April snowfall during this time was 13.1 inches, in 1907; the least, a trace, in a number of years. The average snowfall in the several States was as follows: Maine, 2.3 inches; New Hampshire, 7.0; Vermont, 6.7; Massachusetts, 5.1; Rhode Island, 0.8; Connecticut, 3.6. The average number of days with .01 inch or more of precipitation was 9, 2 less than the average for April, 1917, and 1 less than the normal number for the month.

## WIND.

The prevailing direction of the wind was from the northeast; the normal direction for the month is from the northwest. The greatest monthly wind movement at any station was 13,191 miles, at Nantucket, Mass.; the least, 4,305 miles, at Concord, N. H. The average hourly wind movement was 11.4 miles, which was 0.3 mile above the average for April, 1917, and 0.2 mile above the normal for the month. The highest recorded velocity was 58 miles per hour from the northeast, at Nantucket, Mass. on the 12th, and the same velocity from the northwest, at Providence, R. I. on the 24th. This is about the usual maximum velocity for the month.

## SUNSHINE AND CLOUDINESS.

The average number of clear days was 14; partly cloudy, 6; cloudy, 10, which compares with the normal for the month of 21 clear, 8 partly cloudy, and 11 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 56, which was 7 per cent above the average for April, 1917, and normal for the month, as determined from the records of the past 26 years. The greatest percentage of possible sunshine at any station was 69, at Eastport, Me.; the least, 44, at Block Island, R. I. The greatest percentage of possible sunshine for any April during the past 26 years was 71, in 1899; the least, 36, in 1901.

## DATES OF MISCELLANEOUS PHENOMENA.

*Halos, Solar.*—Eastport, Me., 1, 5, 15, 28, 29; St. Johnsbury, Vt., 10, 17; Blue Hill, Mass., 7, 10, 17, 27; Boston, Mass., 10, 16, 17, 27; Block Island, 8; Hartford, Conn., 7, 16, 17, 20, 27; New Haven, Conn., 3, 7, 16, 27.

*Halos, Lunar.*—Eastport, Me., 23; Northfield, Vt., 16, 23; Blue Hill, Mass., 16, 27, 28; Boston, Mass., 16, 19, 23, 24, 27, 28; Nantucket, Mass., 19, 26; Block Island, 16, 28; Hartford, Conn., 16, 27.

*Thunderstorms* (dates and number of observers reporting on each): Maine—22d, 6; 24th, 2. New Hampshire—18th, 1. Vermont—29th, 1. Massachusetts—3d, 12th, 13th, 17th, 18th, 23d, 24th, 1. Rhode Island—3d, 2; 17th, 1. Connecticut—3d, 3; 4th, 1; 6th, 17th, 18th, 21st, 23d, 24th, 1.

*Auroras* (dates and number of observers reporting on each): Maine—3d, 3; 4th, 1; 5th, 5; 6th, 3; 7th, 10th, 11th, 30th, 1. New Hampshire—4th, 2; 5th, 6; 6th, 5; 25th, 2. Vermont—3d, 11th, 1; 4th, 3; 5th, 5; 6th, 4; 10th, 2. Massachusetts—5th, 5; 6th, 7th, 25th, 1. Rhode Island—5th, 6th, 1. Connecticut—4th, 1; 5th, 3; 6th, 1; 7th, 2.



## Climatological Data for April, 1918.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				No. of days.				Observer.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.		Cloudy.	Prevailing direction of wind.
Maine.																				
Bar Harbor	Hancock	20	32	40.4	-1.3	68	15	24	18	35	4.70	+1.53	3.25	1.0	6	21	5	4	w.	Mount Desert Nurseries.
Cornish	York	778	63	45.0	+2.2	77	2	19	20	46	2.91	-0.63	0.83	6.5	8	12	8	10	ne.	T. H. West.
Eastport	Washington	53	46	38.7	+0.4	63	23	22	18	31	2.10	-0.84	1.39	2.7	9	13	9	8	nw.	U. S. Weather Bureau.
Farmington	Franklin	450	21	43.4	+1.0	74	30	20	47	42	2.46	-0.13	0.68	2.0	8	17	4	9	nw.	State Normal School.
Gardiner	Kennebec	163	26	44.6	+1.0	71	15	22	67	45	2.55	-0.84	1.10	5.0	10	18	4	8	sw.	Samuel D. Soule.
Greenville	Piscataquis	1,140	14	39.7		71	28	16	10	44	1.66	-1.12	0.52	2.2	9	14	6	10	.....	U. S. Weather Bureau.
Houlton	Aroostook	362	16	40.6		70	29	18	10	37	1.23	-0.77	0.68		3	18	5	7	w.	Bangor & Aroostook R.R.
Lewiston	Androscoggin	185	35	42.2	+0.4	68	2	24	4	36	2.56	-0.71	0.57	3.1	9	11	11	8	n.	Union Water Power Co.
Madison	Somerset	257	15	42.9		73	28	21	19	41	2.81	-1.11	0.75	1.9	9	18	6	6	nw.	Great Northern Paper Co.
Millinocket	Penobscot	386	15	41.8		73	28	18	11	45	1.85	-1.50	0.54	T.	6	19	4	7	w.	Great Northern Paper Co.
North Bridgton	Cumberland	450	25	44.0	+1.1	75	30	21	47	52	2.37	-0.97	0.77	4.5	10	16	3	11	se.	C. L. Chadbourne.
Orono	Penobscot	129	49	43.2	+2.7	71	28	21	18	41	2.20	-0.71	1.19	1.5	6	22	3	5	nw.	Maine State College.
Patten	do	550	16	40.7 <sup>a</sup>		75 <sup>a</sup>	23	5 <sup>d</sup>	18	65 <sup>a</sup>	1.00	-1.69	1.00	0.0	1	11 <sup>d</sup>	3 <sup>d</sup>	12 <sup>d</sup>	sw.	Bangor & Aroostook R.R.
Portland	Cumberland	99	47	42.9	-0.1	71	23	26	18	31	2.70	-0.41	1.41	4.2	8	12	9	9	n.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	9	38.2		70	28	9	4	42	1.65	-1.33	0.55	T.	4	20	3	7	n.	E. M. Libby.
Rumford	Oxford	505	25	43.3	+1.9	70	28 <sup>a</sup>	23	4	36	2.23	-0.86	0.87	2.5	10	20	2	8	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	14	36.6		70	28	10	47	43	1.69	-0.27	0.67	T.	4	19	2	9	nw.	Rev. J. M. Thomas.
Winslow	Kennebec	90	23	44.8	+3.6	71	27	20	6	43	1.74	-1.02	0.68	2.0	8	18	4	8	n.	Hollingsworth & Whitney
New Hampshire.																				
Alstead Center	Cheshire	1,120	14	43.3	-0.7	71	30	21	3	33	2.54	-0.48	0.63	7.0	10	16	6	8	nw.	Frank Dewing.
Berlin	Coos	1,090	21	41.0		74	30	17	37	43	1.79	-0.70	0.47	5.3	13	13	8	9	nw.	Brown Company.
Bethlehem	Grafton	1,470	26	41.7	+1.2	72	28	17	5	38	1.71	-0.87	0.71	3.0	8	19	3	8	sw.	Benjamin Tucker.
Concord	Merrimack	350	57	44.4	+0.6	78	30	23	20	44	2.26	-0.53	0.88	10.2	10	17	6	7	n.	U. S. Weather Bureau.
Durham*	Stafford	88	23	43.9	-0.1	76	1	24	20	44	1.37	-1.66	0.77	6.0	5	17	5	8	ne.	N. H. Agr. College.
Franklin	Merrimack	440	19	44.0	+0.8	79	30	17	20	48	2.32	-0.88	0.77	7.5	8	13	7	10	nw.	Gilbert Hodges.
Glencoff	Grafton	1,650	5	40.6		71	28	17	4	38	2.03		0.61	6.5	9	17	5	8	nw.	State Sanatorium.
Grafton	do	863	32																	P. R. Kimball.
Hanover	do	603	84	43.3	+1.7	73	11	19	20	44	2.41	+0.06	0.61	8.8	11	6	10	14	n.	Dartmouth College.
Keenes	Cheshire	506	33	44.7	+0.6	77	30	19	67	49	2.84	+0.19	0.67	7.0	10	17	3	10	nw.	Samuel Wadsworth.
Newton	Rockingham	126	30	43.8	-0.6	77	30	18	20	43	2.38	-1.04	1.26	8.0	8	10	13	7	ne.	W. C. Gale.
Pittsburg	Coos	1575		34.5		68	29	11	20	40	1.57		0.50	4.5	8	17	5	8	w.	Conn. Valley Lumber Co.
Plymouth	Grafton	500	30	42.9	+1.7	76	27	18	20	51	2.09	-0.66	0.57	9.0	10	16	2	12	w.	Mrs. Hattie G. Trow.
Vermont.																				
Bloomfield	Essex		11	41.4		75	28	10	10	47	1.28	-1.50	0.44	.....	7	13	7	10	sw.	Lyman Falls Power Co.
Burlington	Chittenden	404	11	42.5	+1.8	73	28	17	10	38	1.67	-0.20	0.56	4.6	8	9	10	11	n.	U. S. Weather Bureau.
Cavendish	Windsor	910	15	43.1		72	28 <sup>a</sup>	19	20	45	2.98	+0.81	0.80	5.8	10	17	3	10	.....	Colonial Power Co.
Chelsea	Orange	840	23	40.0	+0.1	71	28 <sup>a</sup>	16	47	47	1.95	-0.23	0.65	9.0	8	13	4	13	n.	W. F. Dewey.
Cornwall	Addison	517	25	45.5	+0.1	76	28	18	10	40	1.25	-0.71	0.40	4.0	5	14	6	10	n.	C. H. Lane.
Enosburg Falls	Franklin	601	27	43.2	+0.5	76	28	17	10	44	0.91	-1.60	0.42	5.0	8	13	5	7	n.	J. W. Pomeroy.
Hyde Park*	Lamoille	576	6	42.7		75	28	16	10 <sup>a</sup>	49	1.43		0.40	8.5	9	14	4	12	w.	A. V. Wiswell.
Northfield	Washington	876	32	41.0	+0.8	71	28	17	20	45	2.28	+0.19	0.93	15.0	10	12	7	11	n.	U. S. Weather Bureau.
Rutland	Rutland	562	2	40.3		73	1	18	4	35	1.94		0.42	2.9	10	15	4	11	nw.	George H. Ross.
Somerset*	Windham	2,096	7	37.8		67	1	19	47	36	3.04		0.86	7.2	15	16	6	8	nw.	Power Construction Co.
St. Johnsbury	Caledonia	711	25	44.4	+2.6	76	28	18	20	46	1.48	-0.77	0.32	2.4	8	17	4	9	n.	Fairbanks Museum.
Vernon	Windham	310	3	44.6	+1.2	76	30	22	6	40	2.87	-0.25	0.64	11.0	12	10	8	12	nw.	Conn. River Power Co.
Wells	Rutland	750	27	41.2	-0.6	68	28	15	4	31	2.26	-0.22	0.67	6.0	6	13	6	11	n.	E. R. Pember.
Woodstock	Windsor	700	26	42.6	+0.8	70	30	18	20	41	1.65	-1.10	0.72	8.0	7	14	5	11	.....	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	29	46.2	+0.8	80	30	24	6	45	2.79	-0.25	0.87	4.5	13	12	11	7	nw.	Mass. Agr. College.
Blue Hill†	Norfolk	640	34	46.0	+1.5	73	30	27	5	31	4.19	+0.59	1.62	9.0	12	9	5	16	ne.	Blue Hill Observatory.
Boston	Suffolk	124	48	47.8	+2.5	76	1	31	5	31	3.08	-0.47	1.50	4.2	8	11	9	10	e.	U. S. Weather Bureau.
Chestnut Hill	do	124	38	44.2	-2.4	78	30	19	6	45	4.50	+0.68	1.50	5.0	10	21	0	9	.....	Met. Water Board.
Clinton*	Worcester	370	22	44.9		72	27	26	20	33	4.11	+1.19	1.19	8.0	12				.....	Do.
Concord*	Middlesex	139	28	45.4	+0.3	78	30	24	6	44	2.92	-0.31	1.33	9.5	11	10	9	11	ne.	Fred A. Tower.
Fall River	Bristol	200	52	46.4		70	2	29	5	26	5.51	+1.59	3.16	0.2	11	7	18	5	ne.	C. V. S. Remington.
Fitchburg	Worcester	550	35	46.5	-0.9	78	30	25	20	36	2.15	-0.97	0.67	8.0	10	15	4	11	nw.	Dr. A. P. Mason.
Framingham	Middlesex	160	33	47.8	+1.1	78	30	27	6	40	4.53	+0.93	1.28	6.0	10				n.	Met. Water Board.
Lawrence	Essex	51	34	46.2	+0.1	78	30	25	6	40	2.79	-0.67	1.19	11.0	12	10	15	5	e.	Essex Company.
Lowell	Middlesex	100	33	46.6	+1.3	76	30	25	6	38	2.99	-0.62	1.24	T.	9				n.	Props. Locks & Canals.
Nantucket	Nantucket	47	32	43.4	-0.8	63	15	32	11	27	3.84	+1.20	1.67	T.	11	11	5	14	ne.	U. S. Weather Bureau.
New Bedford	Bristol	88	106																.....	City Engineer.
Plymouth	Plymouth	50	33	43.8		72	23	27	57	31	4.92	+0.58	1.08	4.0	8	15	2	13	e.	Miss L. B. Knapp.
Provincetown	Barnstable	40	31	45.8	+1.0	71	15	31	11	33	3.17	-0.46	1.12	1.0	7	17	6	7	ne.	Gideon Bowley.
Rockport	Essex	25	16	43.8		70	15	31	61	32	3.39		1.37	6.0	11	14	4	12	ne.	U. S. C. G. Station.
Rutland	Worcester	1,160	16	45.5		74 <sup>a</sup>	1	24	4	44	3.26		0.89	7.5	13	14	6	10	ne.	State Sanatorium.
Springfield	Hampden	199	8	48.4	+1.9	78	30	28	57	43	2.98	-0.25	0.75	1.1	13	10	2	18	ne.	U. S. Army.
Turners Falls*	Franklin	200	32	46.0	+0.4	71	30	26	6	38	3.12	-0.55	0.71	12.0	10	13	8	9	n.	Turners Falls Co.
Westboro	Worcester	298	44	47.4	+1.2	72	30	30	57	33	3.63	+0.18	1.50	6.0	8				w.	Miss E. W. Newcomb.
Williamstown	Berkshire	711	37	44.1	+0.1	70	1	25	47	37	2.45	-0.28	0.63	6.0	12	11	5	14		



## Daily Precipitation for April, 1918.

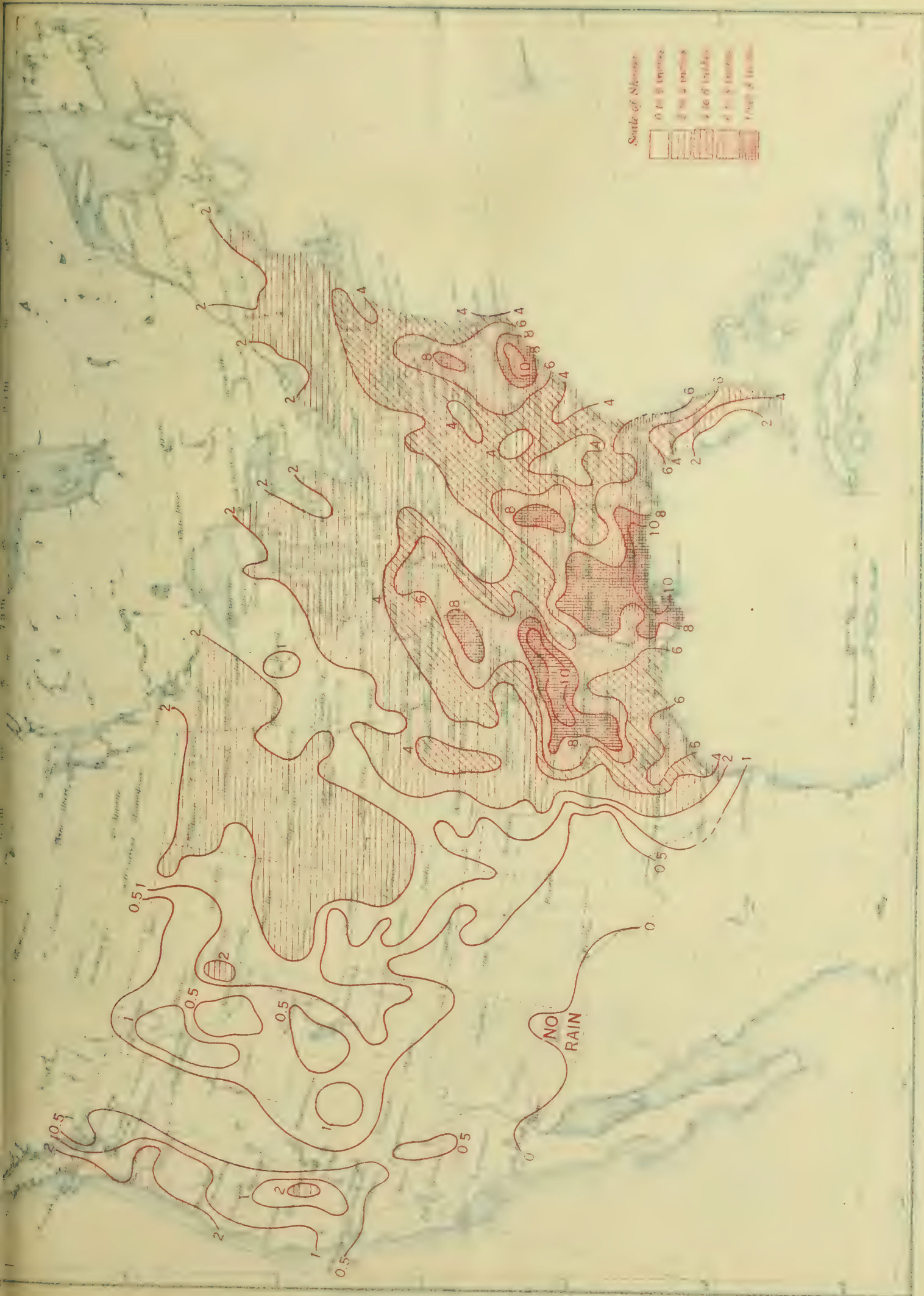
Stations.	Watersheds.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Maine.																																	
Ashland	St. John		.77																			.30		.74								1.40	
Bar Harbor	Coast													T.	.15					.10			.20	.25		.05					.95	4.70	
Cornish	Saco									.20			.90	.34					.10			.83	.20	.32						.32	.95	2.91	
Eastport***	Coast												.02	.06	.12	T.			.24	.01		.77	.62		.01							2.10	
Eustis	Kennebec		T.							.08				.04					.16	.04		.22	.32	T.	.05	T.			.12	.25		2.10	
Farmington	do									.15				.40					.18			.18	.68		.15							1.22	
Gardiner	do									.07	T.		T.	.23	.06				.11	.01		.19	.10		.34				.21	.51		2.46	
Greenville**	Penobscot		.01							.06				.01	T.				.20	.02		.22	.40		.22				T.	.38		1.66	
Houlton	St. John																						.68		.18							.37	1.23
Lewiston	Androscoggin									.15			.25	.21					.11			.57	.41	T.	.31				.41	.14		2.56	
Madison	Kennebec									.02			*	.50					.10			.54	.34	.10					.75	.50		2.81	
Millinocket	Penobscot																					.54	.31	.14	.01				.52	.28		1.80	
North Bridgton	Saco									.24			.16	.26					.08	.04		.39	.38		.24				.38	.20		2.37	
Orono	Penobscot												.05						.10			.19	.09	.36					.41			2.20	
Patten	do																							1.00								1.40	
Portland***	Coast									.07			.63	.20	.01				.03			1.39	.08	.13						.17		2.70	
Presque Isle	St. John		.50	T.																												1.65	
Rumford	Androscoggin									.21			.16	.17					.15			.43	.14	.05	.05					.74	.13		2.23
Van Buren	St. John	T.	.36	T.																		.67		.34						.32		1.69	
Winslow	Kennebec									.03			.02		.06				.15			.68	.85		.27				T.	.28		1.74	
New Hampshire.																																	
Alstead Center	Connecticut		T.							T.	.44	.03	T.		.35	.28				.42	.01		.63	.20		.12				.11		2.54	
Berlin	Androscoggin		T.							.06	.19			.45	.11				.05	.07		.02	.03	.03	.10	.01				.10	.47	1.79	
Bethlehem	Connecticut									T.	.48				.03					.05	.12		.35	.36		.16						1.71	
Brookline	Merrimack										.25			.90	T.					.05		.12		.35	.36		.16					4.10	
Concord***	do									.24			.80	.10					.06	.13		.61	.14	.12						.60		2.26	
Durham	do														.72	.03						.42				.09				.04	.02		1.37
Franklin	do									.28	.02		.77						.20			.65	.03	.22						.15		2.32	
Glenciff	do												.61						.21		.04	.33	.25	.10						.18		2.03	
Grafton	do		T.						.20	.07																							
Hanover	Connecticut										.03	.44	T.		.61	.18	.02			.29			.52	.14		.03				.13	.02	2.41	
Keene	do									.08			.40	T.		.58	.20			.31			.67	.18		.23				.14	.05	2.84	
Newton	Merrimack									.10					.59	.09				.19			1.26	.05	T.	.07				.03		2.38	
Pittsburg (a)	Connecticut		.04								.05	.20							.20			*	.48		.10					.50		1.57	
Pittsburg (b)	do										.26								.20				.48	.10						.30		1.34	
Plymouth	Merrimack									.25	T.		.48	.30					.09	.04		.57	.03		.06					.23	.04	2.09	
Vermont.																																	
Bloomfield	Connecticut										.16	.01							.12			.02	.44		.16					.37		1.28	
Burlington***	Champlain	.06	.11							.16	.24			.29	T.				.22			.56	.03		T.					.29	.06	1.67	
Cavendish	Connecticut										.39	.05		.49	.13				.05			.70	.80		.02							2.98	
Chelsea	do										.32				.65		.06		.24			.48		.08						.06		1.95	
Cornwall	Champlain										.40		T.	.30					.20	T.		.30	.05	T.						T.		1.25	
Enosburg Falls	do										.05	.42			.30				.13			.04	.05	T.	.10	T.				.10		0.91	
Hyde Park	do		.05								.40				.25				.23	.01		.07	.35		.04					.03		1.43	
Northfield***	Champlain										.08	.38	T.		.83	.10			.16	T.		.27	.02	.05	.09					.30		2.28	
Rutland	do										.42	.22		T.	.22	.10			.17	.15		.07	.30	.10	.06						.20	1.94	
Somerset	Connecticut				*	.08					*	.31	.29		.14	.64	.02		.20			.03	.86	.14	.20					*	.13	3.04	
St. Johnsbury	do										.32	.05			.10				.20			.24	.32		.03					T.	.22	1.48	
Vernon	do										.10	.24	.05	.20	.40	.10			.41			.64	.06	.21						.22	.32	2.87	
Wells	Champlain										.67			.48					.32			.32	.30	T.						T.	.17	2.26	
Woodstock	Connecticut										.10			*	.72				.23			.32		.05						.23		1.65	
Massachusetts.																																	
Amherst	Connecticut		.15								T.	.15		.02	.48	.11			.22	.06	.03		.87	.24	.25					.15	.05	2.78	
Ashland	Merrimack		.23								.02			*	1.25				.26			1.33			.06					.08		1.20	4.34
Bakers Bridgeff.	do											.10		.37	.23				.23			.72	.60		.07							2.32	
Bedford	do		.07	.05								.01		.46	.22	.08			.29			1.05	.12		.07					.05		2.47	
Blue Hill	Coast		.24	.06								.01	T.	.96	.46	.23			.42			T.	1.62	.02	T.	.12				.02	.03	4.19	
Boston***	do		.17									T.		.69	.30	.08			.16			T.	1.50	T.	T.	.06				T.		3.08	
Brockton	Coast		.02	.19									.74	.35	.02				.33	.01		1.06	1.28							.04		4.04	
Chestnut Hill	do		.23										.56	.29					.33			.05	1.50		.08							4.50	
Clinton	Merrimack												T.	*	1.42				*	.27		*	1.19		.07					*	.04	.98	4.11
Concord	do		.04	.06								.03		.74	.34	.05			.27	T.		T.	.96	.87		.04				T.	.02	2.92	
Fall River	Coast		.22	.09									.15	1.25	.10	.13			.33			3.16			T.					.02	.01	5.51	
Fitchburg	Merrimack		.08	T.							.01			.55	.44	T.			.16	.02		.67	.09		.12					T.	.01	2.15	
Framingham	do		.20									.03		*	1.41				.28			1.28		.07					*	1.26	4.53		
Haverhill	do										.05			.51	.75	.10			.25	.01		.70	.62		.10								



### Stations.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean	
Maine.																																	
Bar Harbor	Maximum	63	65	58	45	43	54	52	45	46	48	47	40	42	49	68	58	61	58	47	48	46	53	63	61	53	63	63	60	69	60	53.8	
	Minimum	30	38	38	26	26	29	25	27	34	25	26	25	37	35	33	28	28	24	27	25	27	35	43	41	33	35	34	36	33	42	27.0	
	Maximum	76	77	60	45	50	65	55	65	44	49	50	57	39	56	73	69	73	56	54	59	41	53	73	55	56	67	74	72	52	75	59.2	
	Minimum	30	36	33	25	24	23	28	26	35	31	27	30	32	35	29	29	31	28	29	19	36	33	39	39	30	28	29	30	28	29	30.9	
	Maximum	42	44	43	35	33	50	39	38	47	39	39	40	39	42	52	42	60	29	45	45	49	50	63	52	48	55	58	52	53	46	45.8	
	Minimum	33	34	30	25	26	28	32	31	33	27	25	28	32	34	32	30	29	22	27	29	31	38	40	52	48	55	58	52	53	46	57.2	
	Maximum	65	64	60	37	45	59	60	52	44	49	44	44	40	48	70	63	62	56	45	60	55	54	68	62	51	66	72	62	64	74	59.9	
	Minimum	30	35	34	20	23	26	26	27	34	23	25	28	32	35	30	31	30	22	25	20	19	24	32	30	62	51	43	59	70	71	58	51.9
	Maximum	65	58	47	37	36	52	54	53	40	42	48	45	47	54	64	51	52	39	41	54	48	50	62	51	43	59	70	71	58	64	59.9	
	Minimum	32	38	26	17	18	22	21	29	31	16	17	21	30	35	28	35	18	20	19	24	32	30	62	51	43	59	70	71	58	64	59.9	
	Maximum	64	62	57	40	40	57	59	54	48	41	42	47	49	57	66	67	57	52	49	54	54	55	65	48	48	62	70	73	65	67	55.5	
	Minimum	26	34	30	20	24	25	20	23	33	19	18	20	33	36	23	25	25	21	24	19	23	36	42	47	51	60	68	71	65	62	57.2	
	Maximum	59	66	66	48	40	54	58	56	50	44	47	49	43	43	68	69	62	54	44	51	55	61	64	67	51	60	68	71	65	62	57.2	
	Minimum	31	34	35	22	23	29	25	29	35	22	23	27	32	34	27	29	31	21	26	23	25	37	39	43	30	34	32	36	45	60	51.3	
	Maximum	63	69	54	41	43	55	48	45	41	45	40	35	37	51	70	52	60	46	47	47	36	55	71	51	51	62	58	57	45	60	51.3	
	Minimum	37	41	33	27	28	30	32	33	36	29	29	29	32	35	36	37	36	26	28	29	36	36	42	40	34	38	41	40	38	46	34.5	
	Maximum	48	53	53	37	37	48	49	52	53	40	45	50	53	56	52	52	38	40	42	53	45	45	62	62	62	60	68	70	73	65	67	50.7
	Minimum	28	35	29	9	15	15	18	18	32	15	15	18	32	33	25	23	18	18	19	18	20	35	39	38	30	32	32	35	40	45	25.8	
	Maximum	66	64	50	42	42	56	58	52	44	46	46	42	40	58	68	59	62	44	40	54	42	50	65	46	48	68	68	70	53	70	53.6	
	Minimum	33	38	32	23	28	32	29	30	36	26	29	34	34	36	33	32	33	26	28	26	38	35	38	38	34	37	32	35	40	46	33.0	
	Maximum	46	52	50	38	37	46	49	43	45	40	43	58	57	59	56	45	39	30	36	50	50	60	54	40	57	67	70	61	60	49.8	49.8	
	Minimum	24	33	23	15	13	16	15	24	31	14	10	15	29	30	26	12	17	15	18	15	18	34	38	36	29	30	24	57	37	37	23.3	
New Hampshire.																																	
Alstead Center	Maximum	65	58	42	42	56	56	48	44	43	41	41	36	36	57	66	64	65	61	42	52	48	46	63	53	50	62	68	67	61	71	53.5	
	Minimum	43	36	27	23	25	35	34	29	24	26	28	26	28	33	39	53	40	28	28	35	26	38	38	28	33	38	35	38	38	50	33.1	
	Maximum	67	60	51	38	36	53	57	56	48	45	49	40	43	57	65	68	63	53	37	54	50	48	63	49	45	60	63	68	72	61	70	53.9
	Minimum	37	38	29	19	17	22	20	38	25	19	24	28	28	29	30	30	33	29	21	19	36	35	33	33	25	26	30	35	39	47	29.5	
	Maximum	75	72	51	45	44	60	61	53	44	48	44	35	38	59	71	67	69	46	47	57	41	54	69	50	51	66	69	66	51	78	56.0	
	Minimum	31	40	33	27	27	26	29	34	32	32	39	27	32	35	31	32	34	29	31	23	36	37	39	39	33	34	31	33	39	47	32.8	
	Maximum	75	72	53	46	45	61	43	56	49	48	48	39	39	60	72	70	73	61	48	57	47	57	72	57	55	67	72	70	51	79	53.9	
	Minimum	27	32	29	20	25	22	23	27	34	31	26	28	30	32	25	27	27	28	29	17	36	36	30	38	30	25	25	26	37	47	29.0	
	Maximum	73	69	56	45	43	60	60	52	43	51	51	40	47	61	70	66	67	34	44	56	46	56	65	47	50	61	71	73	57	73	56.2	
	Minimum	31	37	34	21	23	20	25	37	28	26	30	29	31	28	27	31	30	29	28	19	36	37	34	39	28	24	27	32	45	49	30.4	
	Maximum	76	72	62	47	45	62	63	55	47	48	46	37	39	61	72	71	72	65	48	59	51	54	68	60	53	67	71	71	64	77	59.4	
	Minimum	27	37	31	24	21	19	24	29	31	27	30	28	30	34	24	29	30	31	30	19	36	38	38	38	26	23	28	30	42	50	30.0	
	Maximum	70	65	56	43	40	57	60	57	44	49	48	40	44	60	68	63	61	54	42	55	48	51	66	55	49	65	76	69	54	24	56.3	
	Minimum	27	31	32	22	23	20	22	30	30	28	29	30	31	30	27	29	29	29	27	18	37	35	31	39	30	30	25	28	40	47	29.5	
Vermont.																																	
Burlington	Maximum	70	60	43	35	39	38	60	49	44	38	47	41	50	58	69	56	53	38	37	52	48	46	59	44	49	55	70	73	64	67	52.4	
	Minimum	44	43	25	23	22	29	35	40	24	17	25	30	32	32	34	33	24	23	22	23	40	40	46	40	34	30	28	32	42	51	52	32.6
	Maximum	69	59	53	39	41	57	62	59	45	44	65	51	56	61	69	61	54	49	36	58	52	49	61	51	49	58	71	76	72	67	56.5	
	Minimum	37	41	25	20	11	23	27	41	24	17	25	36	35	29	26	26	31	25	18	32	43	35	33	24	22	27	32	51	54	29.8		
	Maximum	70	66	51	39	38	57	59	48	40	42	50	38	44	57	67	59	63	35	37	55	45	49	62	45	46	60	70	71	55	70	52.9	
	Minimum	33	39	24	19	21	21	26	39	24	20	20	29	31	27	26	25	30	28	22	17	38	35	33	32	26	23	25	32	46	50	28.9	
	Maximum	71	69	61	43	40	56	60	54	48	47	55	53	46	60	69	68	67	62	41	57	57	51	64	58	47	63	73	76	74	72	58.7	
	Minimum	29	38	30	20	20	20	25	39	28	20	26	38	32	31	27	28	30	30	24	18	38	37	35	35	28	23	27	31	45	51	30.1	
	Maximum	66	64	48	36	36	52	56	52	46	32	38	33	40	54	65	62	60	50	37	52	48	46	46	46	46	54	64	65	62	65	50.0	
	Minimum	43	48	30	15	20	24	36	38	30	18	22	21	26	32	34	34	38	26	25	21	36	36	31	34	25	26	35	37	45	50	31.1	
Massachusetts.																																	
Amherst	Maximum	74	72	52	50	48	63	62	53	49	50	44	36	39	63	74	71	72	54	50	52	45	59	70	48	58	68	69	69	56	80	58.1	
	Minimum	38	47	36	31	26	24	29	32	30	30	33	29	30	35	29	35	36	32	32	26	37	39	49	37	32	28	31	34	45	51	33.3	
	Maximum	72	71	61	37	43	59	58	55	60	37	35	33	34	47	68	62	71	61	47	50	40	59	69	58	54	63	63	58	56	73	55.5	
	Minimum	41	47	36	32	27	29	36	37	37	31	29	28	30	32	39	42	43	30	31	29	36	40	45	42	34	37	43	41	41	49	36.1	
	Maximum	76	75	56	40	48	62	64	59	49	42	36	33	32	33	72	67	62	56	50	52	40	60	23	51	55	67	66	62	59	78	39.9	
	Minimum	45	52	37	35	31	34	41	38	40	36	33	32	36	36	72	67	62	56	50	52	40	60	23	51								







## Daily Precipitation for April, 1918—Continued from page 29.

Stations.	Watersheds.	Day of month.																															Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
<i>Rhode Island.</i>																																		
Block Island***	Coast			.37	T.						T.	.49	.73	.12	.01				.14	.14			1.33								T.	.08	3.41	
Bristol	do			.37	* .24						T.	T.	T.	1.49						.32			* 2.81								*	.05	4.91	
Greene	do			.33															1.37	.13			2.55										4.88	
Hope Valley	do	.02		.42	.10						.20			.15	1.33				.35				2.75										5.82	
Kingston	do			.44	.03							.05	1.67	.25					.38				2.68								.10		5.60	
Narrag'sett Pier***	do			.30	.18	.05					.06	.05	1.03	.25	.05				.37	.05			2.45	.05							.05	.05	4.95	
Pawtucket	do			.54							T.	*	*	1.76					*	.29			1.77		.01						*	.18	4.55	
Providence***	do			.22	T.						T.	.11	.80	.08	T.				.12	.07			2.16			.01					.12	.02	3.74	
Waltham Lake	do																																	
<i>Connecticut.</i>																																		
Bridgeport	Coast		T.	.42	.03						.11	.09	.10	.67	.13				T.	.38			1.31	T.		.07					.01	.24	3.56	
Canton	Connecticut			.26							.28	.01		.92					.15	.15		T.			.25						.22		3.06	
Colchester	Coast				.37														.31			1.45	.11		.05						T.	.24	3.93	
Cream Hill	Housatonic			.35							.30	.05	.01	.60	.20					.25	.25			1.30	.25		.30					.25		3.86
Danielson	Coast			T.															.25	.25			1.50								.05		2.30	
East Hartland	do		.25								.40	.08	.11	.21					.36	.06			1.12		.34						.26	.72	3.93	
Falls Village	Housatonic			.35							.08	.07	.20	.33	.20				.45	.14			1.00	.10	.35						.18		4.05	
Hartford***	Connecticut			.39							.01	.08	.11	.60	.14				.28	.04			1.42	.01	.08	.03					.07	.10		3.36
Lake Konomocott	Coast				.44									.55	.50				.34	.12			1.78			.02					.04	.36	4.26	
New Haven***	do			.49							.02	.07	.38	.46	.18				.34	.12			1.10	.80									4.24	
New London	do			*	.55						.05	.20	.76	.18					.18	.27			1.62			.16					.07		3.68	
N. Grosvenor Dale	do			.32								.02	*	1.22					.30	.10	*		1.55		.04					*	.20		3.74	
Norwalk	do			.42							.27	.15	*	.71						.40	T.		.90	.15		.05					T.	.10	2.75	
Southington	do			.10	.10						.05	.05	T.	.75	.10	T.																		
Storrs	Coast																																	
Torrington	Housatonic																														*	.16	5.05	
Voluntown	Coast			*	.32						.06																							
Waterbury	Housatonic																																	

## Special River Rainfall Stations

<i>Maine.</i>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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## Daily Evaporation (inches) and Wind Movement (miles).

Gardiner, Me. . .	{	Evaporation . . .																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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| Observations taken at 6 p. m.

||| Observations taken at 7 a. m.

See temperature and precipitation data in Climatological Tables.

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

\* Precipitation indicated in that of following day.

T. Precipitation is less than 0.01 inch rain or melted snow.  
 † Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.; Sewall's Falls, Concord, N. H.

## Comparative Data for New England for April.

Year	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.								
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888...	40.1	89	- 5	2.70	.....	11	4.3	11	13	6	...	nw.	9.4	46	sw.	1904...	11.5	78	0	5.68	3.27	12	7.7	10	9	11	52	nw.	10.4	55	w.
1889...	46.7	92	10	3.17	.....	9	2.0	9	10	12	...	ne.	10.8	52	ne.	1905...	13.7	79	- 12	2.20	1.66	8	T.	12	10	8	63	nw.	10.9	63	w.
1890...	44.2	89	6	2.63	.....	9	1.8	11	9	11	...	nw.	10.7	48	ne.	1906...	15.9	77	- 7	2.85	3.33	9	5.5	13	8	9	60	nw.	9.9	68	se.
1891...	45.7	84	2	2.39	.....	8	7.8	10	11	9	...	nw.	11.0	70	se.	1907...	10.0	77	- 3	3.20	2.23	9	13.1	11	8	11	48	nw.	11.7	70	nw.
1892...	44.8	81	1	1.02	.....	8	T.	11	10	8	...	nw.	10.9	51	ne.	1908...	12.8	80	- 1	2.25	1.50	11	2.7	13	9	8	59	nw.	12.3	73	nw.
1893...	40.9	73	- 7	3.19	.....	11	7.7	10	8	13	...	nw.	11.0	61	se.	1909...	13.0	86	- 2	1.59	5.26	12	2.5	11	9	10	48	nw.	12.7	90	w.
1894...	41.8	84	1	2.47	.....	12	8.3	10	8	13	...	sw.	13.3	72	se.	1910...	18.7	84	- 2	3.07	3.00	9	T.	12	8	10	53	nw.	10.1	56	s.
1895...	41.5	84	8	4.34	1.25	13	8	10	7	13	...	sw.	10.8	60	se.	1911...	11.3	82	- 8	2.23	2.51	6	7.0	17	7	6	66	nw.	11.1	70	ne.
1896...	41.8	84	8	4.34	1.25	13	8	10	8	13	...	sw.	11.7	51	w.	1912...	11.0	81	- 5	3.51	1.37	11	4.2	10	8	12	55	nw.	11.3	54	s.
1897...	41.5	84	8	4.34	1.25	13	8	10	8	13	...	sw.	11.2	46	sw.	1913...	13.3	86	0	3.71	3.55	10	1.1	12	7	11	57	nw.	10.7	51	w.
1898...	42.0	85	5	1.17	1.10	13	1.8	9	8	13	...	ne.	13.2	72	ne.	1914...	40.8	88	- 3	1.66	3.18	12	4.1	11	7	12	57	nw.	12.5	88	w.
1899...	44.2	92	2	1.68	1.68	6	2.0	17	8	5	71	nw.	9.7	52	nw.	1915...	48.0	93	15	2.24	2.23	8	5.2	11	9	10	51	nw.	10.9	79	ne.
1900...	44.5	84	1	1.82	1.68	6	T.	11	7	9	54	nw.	11.0	51	nw.	1916...	43.1	80	12	3.32	1.85	12	8.4	10	7	13	42	nw.	11.3	53	nw.
1901...	44.7	87	1	6.80	5.00	11	T.	8	3	19	36	ne.	12.7	63	ne.	1917...	41.3	79	3	2.53	2.03	11	4.5	10	7	13	49	nw.	11.1	63	nw.
1902...	45.4	86	- 11	3.67	3.39	9	T.	9	10	11	45	sw.	10.9	53	nw.	1918...	44.1	80	5	2.83	3.25	9	3.6	14	6	10	56	ne.	11.4	58	ne.
1903...	44.8	87	- 14	2.69	3.05	8	1.5	13	8	9	65	nw.	11.9	60	ne.																



U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU

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# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

MAY, 1918

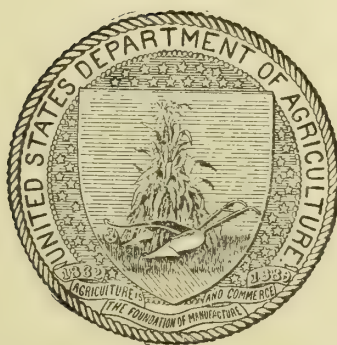
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BY

JOHN W. SMITH

METEOROLOGIST

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
JUNE 24, 1918



Departure of the Mean Temperature from the Normal, May, 1918.



Shaded portions show excess (+).  
Unshaded portions show deficiency (-).  
Lines show amount of excess or deficiency.



## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

VOL. XXX.

BOSTON, MASS., MAY, 1918.

No. 5.

## GENERAL SUMMARY.

The weather during May was much warmer than usual at this season, the average temperature for the section,  $59.7^{\circ}$ , being the highest of any May in the section record, beginning in 1888, with the exception of 1911, when it was  $60.6^{\circ}$ . The excess in temperature prevailed practically during the entire month, except on a few days during the last week. Maximum temperatures of  $80^{\circ}$  or higher were more frequent than for a number of years past in this month. Minimum temperatures of near or below the freezing point were confined to the northern States, and except in a few localities, to the first week. The rainfall was generally well distributed through the month, and was somewhat less than the normal amount, except in Vermont and at scattered stations in Maine, New Hampshire, western Massachusetts and Connecticut, where there was a moderate excess. There was an average amount of sunshine. The high average temperature and generally sufficient precipitation were very favorable for the growth of vegetation which, at the close of the month, was more advanced than usual, and from ten days to two weeks further advanced than for several years past at this date.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 13 stations reporting, was 30.04 inches, which was 0.23 inch above the mean for May, 1917, and 0.07 inch above the normal for the month. The highest monthly mean was 30.07 inches, at Nantucket, Mass., Block Island, R. I. and New Haven, Conn.; the lowest, 29.99 inches, at Concord, N. H. The highest recorded was 30.51 inches, at Burlington, Vt. on the 15th; the lowest, 29.38 inches, at Eastport, Me. on the 8th. The monthly range for the section was 1.13 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 76 stations, was  $59.7^{\circ}$ , which was  $11.9^{\circ}$  above the mean for May, 1917, and with the exception of May, 1911, when the average temperature was  $60.6^{\circ}$ , the highest of record for any May since the beginning of the section averages in 1888. The lowest average May temperature during this time was  $47.8^{\circ}$ , in 1917. The average temperature for the several States of the section was as follows: Maine,  $56.9^{\circ}$ ; New Hampshire,  $58.6^{\circ}$ ; Vermont,  $59.2^{\circ}$ ; Massachusetts,  $61.7^{\circ}$ ; Rhode Island,  $58.3^{\circ}$ ; Connecticut,  $62.5^{\circ}$ . The average temperature for the section was  $4.7^{\circ}$  above the normal for the month. The departures from the normal for the several States were as follows: Maine,  $+4.6^{\circ}$ ; New Hampshire,  $+4.5^{\circ}$ ; Vermont,  $+4.6^{\circ}$ ; Massachusetts,  $+5.1^{\circ}$ ; Rhode Island,  $+2.9^{\circ}$ ; Connecticut,  $+5.5^{\circ}$ . The highest monthly mean was  $64.8^{\circ}$ , at Worcester, Mass.; the lowest,  $48.5^{\circ}$ , at Eastport, Me. The highest recorded was  $95^{\circ}$ , at Patten, Me. on the 18th; the lowest,  $23^{\circ}$ , at Van Buren, Me. on the 5th. The greatest monthly range was  $70^{\circ}$ , at Patten, Me.; the least,  $34^{\circ}$ , at Bristol, R. I. The greatest daily range was  $55^{\circ}$ , at Patten, Me. on the 21st.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 13 stations reporting, was 73 per cent, which was the same as that of May, 1917, and 1 per cent above the normal for the month. The highest monthly average was 88 per cent, at Block Island, R. I.; the lowest, 66 per cent, at Boston, Mass.

## PRECIPITATION.

The average for the section, as determined from the records of

75 stations, was 2.75 inches, which was 0.66 inch below the average for May, 1917. During the past 30 years the average May precipitation has been greater in 19 and less in 11 years than that of the present month. The greatest average May precipitation during this time was 5.83 inches, in 1901; the least, 0.68 inch, in 1903. The average precipitation for the several States of the section was as follows: Maine, 2.33 inches; New Hampshire, 3.16; Vermont, 3.69; Massachusetts, 1.98; Rhode Island, 2.19; Connecticut, 3.40. The average for the section was 0.70 inch below the normal for the month. The departures from the normal for the several States were as follows: Maine,  $-1.06$  inches; New Hampshire,  $-0.28$ ; Vermont,  $+0.40$ ; Massachusetts,  $-1.42$ ; Rhode Island,  $-1.59$ ; Connecticut,  $-0.17$ . The greatest monthly amount was 4.92 inches, at Burlington, Vt.; the least, 0.39 inch, at Houlton, Me. The greatest amount in 24 hours was 1.65 inches, at New London, Conn. on the 26th. No snow fell during the month, except at a few points in the extreme north portion. The average number of days with .01 inch or more of precipitation was 11, which was 2 less than the average for May, 1917, and normal for the month.

## WIND.

The prevailing direction of the wind was from the southwest, which is the normal direction for the month. The greatest monthly wind movement at any station was 13,215 miles, at Blue Hill Observatory, Hyde Park, Mass.; the least, 4,065 miles, at Concord, N. H. The average hourly wind movement was 11.0 miles, which was 1.0 mile less than the average for May, 1917, and 0.5 mile above the normal for the month. The highest recorded velocity was 55 miles per hour from the west, at Blue Hill Observatory, Hyde Park, Mass. on the 8th. This is about the usual maximum velocity for the month.

## SUNSHINE AND CLOUDINESS.

The average number of clear days was 13; partly cloudy, 9; cloudy, 9, which compares with the normal for the month of 11 clear, 10 partly cloudy, and 10 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 57, which was 12 per cent above the average for May, 1917, and 3 per cent above the normal for the month, as determined from the records of the past 26 years. The greatest percentage of possible sunshine at any station was 71, at Providence, R. I.; the least, 40, at Northfield, Vt. The greatest percentage of possible sunshine for any May during the past 26 years was 78, in 1903; the least, 39, in 1907.

## DATES OF MISCELLANEOUS PHENOMENA.

*Halos, Solar.*—Northfield, Vt., 11, 24, 29; Woodstock, Vt., 11, 25; Blue Hill, Mass., 4, 6, 7, 16, 24, 26; Boston, Mass., 6, 24, 26; Somerset, Mass., 4, 16, 21, 26.

*Halos, Lunar.*—Blue Hill, Mass., 24; Boston, Mass., 19, 20, 24; Narragansett Pier, R. I., 15.

*Auroras.*—Eastport, Me., 8; Northfield, Vt., 4, 16; Blue Hill, Fall River, Nantucket, Mass., Hartford, Conn., 16, 17; Boston, Mass., 12, 16; Rockport, Mass., 9, 17; Falls Village, Conn., 16.

*Thunderstorms* (dates and number of observers reporting on each): Maine—1st, 3; 5th, 1; 6th, 9; 10th, 12; 11th, 3; 13th, 5; 17th, 1; 19th, 4; 20th, 3; 21st, 2; 23d, 3; 27th, 1. New Hampshire—6th, 3; 7th, 1; 8th, 2; 10th, 11; 11th, 2; 13th, 7; 14th, 2; 18th, 1; 19th, 1; 20th, 6; 21st, 3; 27th, 7; 28th, 4. Vermont—6th, 2; 8th, 7; 10th, 11; 11th, 3; 12th, 1; 13th, 9; 19th, 5; 20th, 6; 21st, 4; 22d, 1; 23d, 2; 27th, 9; 28th, 2. Massachusetts—6th, 12; 7th, 1; 8th, 13; 10th, 7; 11th, 1; 13th, 1; 19th, 1; 21st, 5; 22d, 1; 23d, 8; 25th, 5; 26th, 1; 27th, 12; 28th, 8. Rhode Island—6th, 4; 8th, 2; 10th, 1; 11th, 2; 23d, 3; 25th, 2; 27th, 2. Connecticut—5th, 1; 6th, 6; 8th, 1; 10th, 6; 13th, 1; 18th, 1; 21st, 5; 22d, 1; 23d, 10; 25th, 6; 26th, 2; 27th, 7; 28th, 2.



Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.					Precipitation, in inches.				No. of days.				Observer.			
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.		Partly Cloudy.	Cloudy.	Prevailing direction of wind.
<b>Maine.</b>																				
Bar Harbor	Hancock	20	32	57.2	+5.2	88	18	30	5	40	1.14	-2.35	0.85	0	7	25	2	4	w.	Mount Desert Nurseries.
Cornish	York	778	63	61.6 <sup>b</sup>	+7.0	91 <sup>b</sup>	18	32 <sup>b</sup>	5	47	2.47	-1.45	0.95	0	9	12 <sup>b</sup>	6 <sup>b</sup>	11 <sup>b</sup>	w. s.	T. H. West.
Eastport	Washington	58	46	48.5	+1.6	78	18	35	5	38	1.50	-2.30	0.61	0	8	6	13	12	s.	U. S. Weather Bureau.
Farmington	Franklin	450	21	59.0	+4.9	89	18	28	5	45	3.19	-0.56	0.97	0	9	14	5	12	n.w.	State Normal School.
Gardiner	Kennebec	163	26	59.8	+4.5	87	18	32	5	39	1.16	-2.46	0.38	0	12	17	4	10	s.w.	Samuel D. Soule.
Greenville	Piscataquis	1,140	14	54.4		87	18	27	5	46	3.37	-1.10	1.03	0	17	12	7	12		U. S. Weather Bureau.
Houlton	Aroostook	362	16	55.7		88	20	32	5	42	0.39	-1.79	0.13	0	4	16	9	6	w.	Bangor & Aroostook R.R.
Lewiston	Androscoggin	185	35	54.8	+3.8	88	18	34	5	38	2.55	-0.57	0.96	0	9	9	8	14	s.	Union Water Power Co.
Madison	Somerset	257	15	57.4		90	18	25	16	48	2.32	-1.57	0.97	0	10	15	7	9	n.w.	Great Northern Paper Co.
Millinocket	Penobscot	386	15	54.8		89	18	24	5	43	4.08	+1.00	1.23	0	14	14	3	14	w.	Great Northern Paper Co.
North Bridgton	Cumberland	450	25	59.8	+4.9	87	18	31	5	47	2.42	-1.00	0.89	0	13	10	8	13	n.	C. L. Chadbourne.
Orono	Penobscot	129	49	57.6	+4.9	88	18 <sup>†</sup>	31	5	40	1.69	-1.69	0.81	0	6	22	5	4	s.w.	Maine State College.
Patten	do	550	16	56.6 <sup>†</sup>		95 <sup>†</sup>	18	25 <sup>†</sup>	1	55 <sup>†</sup>	2.80	+0.16	1.00	0	4	6 <sup>†</sup>	3 <sup>†</sup>	18 <sup>†</sup>	s.w.	Bangor & Aroostook R.R.
Portland	Cumberland	99	47	56.6	+3.1	85	6	39	5	39	1.76	-1.91	0.79	0	11	12	10	9	s.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	9	51.4		87	18	24	6 <sup>†</sup>	38	4.00	+0.56	0.90	0	9	17	2	12	s.	E. M. Libby.
Rumford	Oxford	505	25	58.4	+4.7	86	18	32	5	42	3.30	-0.21	1.00	0	9	19	2	10	n.w.	Charles A. Mixer.
Van Buren	Aroostook	510	14	51.2		85	18 <sup>†</sup>	23	5	47	3.57	+0.43	0.59	0.5	16	15	7	9	s.w.	Rev. J. M. Thomas.
Winslow	Kennebec	90	23	59.8	+6.2	88	19	30	5	44	1.83	-1.28	0.82	0	7	17	7	7	s.	Hollingsworth & Whitney
<b>New Hampshire.</b>																				
Alstead Center	Cheshire	1,120	14	61.1	+3.2	87	13	35	2	40	4.80	+1.52	1.09	0	15	16	8	7	sw.	Frank Dewing.
Berlin	Coos	1,090	21	57.0		87	18	25	4	41	1.93	-1.13	0.68	0	15	5	14	12	w.	Brown Company.
Bethlehem	Grafton	1,470	26	57.4	+3.7	81	6 <sup>†</sup>	28	5	38	3.56	+0.24	0.89	0	13	13	9	0	sw.	Benjamin Tucker.
Concord	Merrimack	350	57	61.0	+5.3	88	7	35	16	44	2.43	-0.81	0.74	0	11	18	8	5	s.	U. S. Weather Bureau.
Durham	Stafford	88	23	60.0	+5.2	89	7	33	16	45	2.41	-0.47	0.90	0	7	13	9	9	sw.	N. H. Agr. College.
Franklin	Merrimack	44																		

The departures from normal temperature and precipitation are computed only for such stations as have ten or more years of record, but all complete reports are used in determining section or State means. Reference letters, a, b, c, appearing in the table indicate number of days missing; for example, b represents two days, etc. Also on other dates. \*Received too late to be included in means and summaries. \* Temperature data are from observed readings of the dry bulb; means are computed from observed readings. T. Precipitation is less than 0.01 inch rain or melted snow. \$ Thermometers not supplied by Weather Bureau.



## Daily Precipitation for May, 1918.

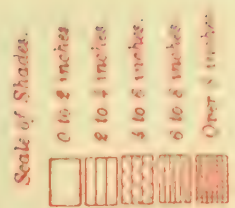
Stations.	Watersheds.	Day of month.																															Total.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Maine.																																			
Ashland	St. John	1.09			T.							1.09	.02	.20	.42							.26			.41					1.19		.18	4.86		
Bar Harbor	Coast	.85					.02					.03	T.	.10									T.	.05				.05	.04				1.44		
Cornish	Saco	.95					T.	.01		.27		.01	.20	.40								T.	T.	T.			T.	.12	.49	.02			2.47		
Eastport***	Coast	.61					.18	T.		.26			.01	.07									T.	T.	T.	.25		.06	.06			T.	1.50		
Eustis	Kennebec	.66	.01	.03			.05	T.		T.	.05	.44	T.	.95	.37				.02		T.	.08	.02		.09		.15	.14	.02	.45	.12	3.65			
Farmington	do	.91					T.			.04	.75	T.	.07	.97							T.	T.	T.				.20	.02		.16	.07	3.19			
Gardiner	do	.38					.01			.02	.13	.01	T.	.21								.01		T.	.04		.19	.02	T.	.12	.02	1.16			
Greenville***	Penobscot	1.03	.04	T.			.09	T.	.09	T.	.02	.31	.01	.32	.48						.25	.12	.02		.04		.15	.07		.27	.06	3.37			
Houlton	St. John	.12											.13															.11		.03		0.39			
Lewiston	Androscoggin	.96					.39			.27		T.	.02	.33						T.			T.	T.		T.	T.	.45	.06		.61	.63	2.55		
Madison	Kennebec	.53				.09				.02	.39		T.		.75	.22								T.			.12		.13		.04	.63	2.32		
Millinocket	Penobscot	.51	T.				1.23	T.	.12		.13			.44	.10						.34	.01		.11	.22		.06	.41	T.	.21	T.	.19	4.08		
North Bridgton	Saco	.89					T.	T.	.01		.03	.29	.03	.07	.51							.03					.03	.46	.03		.03	.02	2.43		
Orono	Penobscot	.81						.15				.24			.29																.16	.04	1.69		
Patten	do	.60					1.00			.60											T.								.60				2.80		
Portland***	Coast	.79								.12		T.	.01	.13									.03	T.	T.		.05		.41	.01	.04	.09	.08	1.76	
Presque Isle	St. John	.80	.05						.05		.73	.55	T.		.60						T.		.50	T.	.35			T.	.90		.26	4.60			
Rumford	Androscoggin	.76					T.	T.			.73		T.		.60					.28		T.	.01	T.	T.			.37		.03	.12	T.	3.99		
Van Buren	St. John	.47			.05		.07	.08	.24		.07	.59	.04	.09	.40						T.	.32	.30		.43			.13	.21		.08		3.57		
Winslow	Kennebec	.69					.01				.05		T.		.32													.09	T.	.15	.02		1.83		
New Hampshire.																																			
Alstead Center	Connecticut	.56	.01						.06			.37	.03	.42	1.09								.29	.29	.01				.62	.23	.16	T.	.24	.12	4.80
Berlin	Androscoggin	.19	.01				.01	T.		.35	.01	.02	.67	.01								.02		.08			T.	.32	.07	.01	.07		.14	1.98	
Bethlehem	Connecticut	.66		T.			.06	T.	.07	.03	.37	.42	T.	.34	.32							.09			.05			.04	.89			.18	T.	3.56	
Brookline	Merrimack									.35				.50									.20				.30	.15				.20	.33	1.93	
Concord***	do	.74								T.		.50		T.	.43	.27							.13	T.	T.		.10	.01	.11	.06	.01	.07	2.43		
Durham	do	.87									.13			.20									.90		.05			.19					.07	2.41	
Franklin	do	.53								.46		T.		.48									.02	T.				.19			.04		.07	1.84	
Glenciff	do	.62						.08			1.26			T.	.94						.14		.10		T.			.24		.62	T.	.17		4.17	
Grafton	do									.21	.01	.36		.38	.48							.27						.16	.27		.02	.20		3.54	
Hanover	Connecticut	.56	.03	.01					.58		1.10		.01	.12							.17	.29	.31					.46	.42	.06	T.	.09	.29	4.65	
Keene	do	.48												.37										.15		T.		.20	T.	.18	T.	.02	T.	1.82	
Newton	Merrimack	.90										T.			.37								.12								.18		.02	T.	4.01
Pittsburg (a)	Connecticut		.80	T.		T.	.02				.92		T.		1.40								.12					.14	T.		.18	.59	.14	4.92	
Pittsburg (b)	do	.30		.09			.25		.25	.08	.10	.04	.54	.50							.09	.50			.35					.17		.60	.15	4.92	
Plymouth	Merrimack	.46	T.					.05		.46	T.	T.	.29	.41								T.					T.	.12	.34	T.	.05	.05		2.30	
Vermont.																																			
Bloomfield	Connecticut	.44		.09	.05		.05			.08	.78	.04	.10	1.25								.02	.34		.15				.75	.03		.33		4.45	
Burlington***	Champlain	.47	T.	T.			.03	T.		.12	.45	.07	T.	.68	.20							.14	.92		.65		.17	T.	1.02	.01	.11	T.		4.92	
Cavendish	Connecticut	.61		.05					.12	.08	.19	.01	.19	.54									.24	T.				.37	.19	.66		.25		3.46	
Chelsea	do	.24	.08						.09	.68		T.	.75	.35									.26		.05		.30							3.20	
Cornwall	Champlain	.55	T.						.15	.50	T.	.04	1.05	.10								.15		.12	.05	T.		.10	.55	.15	.15			3.76	
Enosburg Falls	do	.48	.05	.06			.24	.01	.05	.05	.15	.15	.05	.40	.35						.05	T.	.21	.05	T.			T.	.04	.40	.13		.14	3.01	
Hyde Park	do	.45		.09			.15				.44	.23	.94	.47											1.43			.60	T.		.76			5.56	
Northfield***	Champlain	.36	.02				T.	T.	.08	T.	.63	.02	.05	.87	.09								.05		.14		.22	T.	.43	.06	.07	.04	T.	3.13	
Rutland	do	.44	.01	.03			.42		.02	.86			.40	.92									.12	.41		.01		.11	.35	.05	.35			4.40	
Somerset	Connecticut	.60	.13	.10			.09		.09		.63		.06	.86									.69	.02	.14	.05		.32	.06	.25	.02	.12	.05	4.19	
St. Johnsbury	do	.38		.02			.06	.04	.03	.05	.05	.41	.03	.85	.48								.04	.09	.18			.05	.29	T.	.27	T.	3.32		
Vernon	do						.02				1.10			.96	.03								.17	.04			.30		.06	.02	.08			2.76	
Wells	Champlain	.48	T.							.57		T.	1.00	.32									.62					.22	.42	.05	.48	.05		4.21	
Woodstock	Connecticut		.73					.39		.06		T.	.53	.41								.09	.23					.23	.20		.06		.20	3.13	
Massachusetts.																																			
Amherst	Connecticut	.90					.03				.06		T.	.40	.30								.13	.08			.43		.06		.04	.03	.01	2.47	
Ashland	Merrimack	.06					.09		.12					.22									*	.30			.27	.01			.19	.02		1.28	
Bakers Bridge	do	1.20												.35									.25				.40	.12	.06		.18	T.	2.56		
Bedford	do	1.05					T.		.07			.02	T.	.34									.07	.19			.22	.15	.03	T.	.13	.04		2.31	
Blue Hill	Coast	1.26							.16					.12									.36	.84	.09		T.	.21	.06	.02	T.	.09	T.	3.21	
Boston***	do	1.05					.03	.03	.03					.22									T.	.14	.01		.15		.10	.14	.01	.03	.04	1.99	
Brocton	Coast	1.25					T.	.05	.03					.11									.02	.90	.08			.01				.09	T.	2.54	
Chestnut Hill	do	.04					.09							.10									.20		T.		.17		.15	.17	.10			1.17	
Clinton	Merrimack	.01							T.		.03		T.	.26		</																			



## Daily Temperatures for May, 1918.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean		
Maine.																																		
Bar Harbor.....	Maximum	52	64	61	61	57	67	68	76	67	63	64	64	65	60	67	65	67	83	84	75	83	79	76	68	75	71	67	62	63	55	65	67.7	
	Minimum	39	28	49	40	30	40	43	42	43	44	44	53	50	49	48	42	49	48	58	57	60	48	42	50	54	56	45	45	50	45	45	46.6	
Cornish.....	Maximum	63	68	68	71	64	88	87	80	74	82	74	63	89	69	73	76	87	91	87	86	83	68	84	75	80	68	62	83	68	...	...	76.1	
	Minimum	46	39	45	37	32	41	57	50	38	49	45	45	46	54	41	33	50	52	51	58	66	48	42	50	50	47	52	51	55	...	...	47.2	
Eastport.....	Maximum	49	61	58	54	46	46	49	64	62	60	59	50	49	51	61	57	61	78	64	50	75	55	58	60	68	51	43	40	54	54	54	56.5	
	Minimum	37	37	38	39	35	38	42	39	42	41	40	39	39	42	40	39	41	40	43	42	44	43	42	44	43	41	40	40	41	43	42	40.5	
Farmington.....	Maximum	67	66	62	62	62	85	84	79	70	70	67	62	75	70	69	75	86	81	86	85	85	77	78	75	80	78	65	47	63	55	71	72.6	
	Minimum	37	37	44	43	28	40	61	54	44	43	43	44	45	55	48	34	45	48	44	53	62	50	45	38	38	49	49	40	43	44	47	45.4	
Greenville.....	Maximum	58	61	56	50	56	81	80	72	50	68	61	55	57	65	59	68	84	87	84	87	84	81	75	67	73	66	56	60	63	53	57	66.1	
	Minimum	37	33	39	38	27	35	53	47	39	40	38	38	43	53	41	36	50	50	56	57	62	41	41	39	39	42	42	44	40	38	45	42.7	
Millinocket.....	Maximum	67	62	61	54	52	77	71	76	61	66	56	57	62	66	66	67	84	89	86	84	80	60	74	68	78	65	47	59	66	60	57	67.0	
	Minimum	41	36	43	40	24	37	52	45	41	32	43	40	48	54	45	35	42	46	50	49	60	43	49	40	38	43	45	46	36	40	46	42.5	
Orono.....	Maximum	65	60	64	61	58	75	78	77	73	67	62	63	59	62	62	64	80	88	83	88	83	80	72	78	76	68	60	67	68	58	70.1		
	Minimum	47	38	46	41	31	43	54	48	41	42	46	44	41	54	48	35	47	48	48	52	59	49	43	42	46	47	45	45	44	42	46	45.2	
Portland.....	Maximum	56	67	62	62	49	85	80	78	70	60	63	52	64	61	67	63	75	82	72	70	79	65	78	62	68	60	53	70	58	50	66	66.0	
	Minimum	42	39	46	42	39	46	59	50	43	48	47	44	45	51	49	43	43	51	51	55	60	42	45	50	50	46	47	47	47	46	48	47.3	
Presque Isle.....	Maximum	37	58	53	57	54	62	60	52	58	67	63	60	73	68	67	57	73	87	83	81	83	69	65	70	73	66	63	53	64	62	62	64.6	
	Minimum	37	35	39	32	25	24	24	31	30	30	34	38	43	55	42	38	37	50	55	51	55	38	50	32	38	34	38	44	34	38	40	38.3	
Rumford.....	Maximum	54	63	60	48	60	82	82	75	64	72	60	58	73	68	66	65	74	84	86	84	83	82	60	76	72	76	68	57	75	64	54	70	69.7
	Minimum	44	39	46	42	32	40	58	48	42	47	44	46	46	56	46	38	51	52	50	58	59	50	48	40	42	48	48	53	48	46	50	47.2	
Van Buren.....	Maximum	58	56	55	65	48	58	55	72	52	62	56	68	66	61	68	76	85	85	82	76	67	65	62	71	65	59	62	61	63	67	61	63.7	
	Minimum	33	35	36	31	23	35	40	65	35	39	35	30	66	50	35	31	29	48	52	50	30	45	34	45	30	34	32	44	44	55	38.6		
New Hampshire.																																		
Alstead Center.....	Maximum	64	62	62	62	69	81	82	77	67	75	69	71	87	72	67	72	86	77	28	18	15	65	75	70	72	66	78	80	75	57	24	72.4	
	Minimum	44	35	47	44	37	41	60	47	40	49	40	57	67	55	47	46	48	53	52	55	60	53	53	43	48	52	48	65	51	46	53	49.8	
Bethlehem.....	Maximum	62	61	55	54	65	81	81	78	60	74	61	65	78	64	60	73	50	52	53	56	60	73	69	73	53	70	70	73	66	68	70	69.5	
	Minimum	41	31	40	33	24	43	39	40	35	45	34	42	50	51	42	37	50	52	53	56	60	73	69	73	53	70	70	73	66	68	70	69.5	
Concord.....	Maximum	60	67	64	65	68	87	88	73	70	82	68	70	82	68	69	76	86	87	83	84	78	62	81	74	76	65	47	54	63	59	77	73.8	
	Minimum	45	40	47	39	36	43	60	41	42	53	45	47	55	54	41	35	48	51	52	57	62	49	47	48	53	49	47	54	49	47	51	48.2	
Franklin.....	Maximum	66	69	64	65	70	88	87	72	82	73	65	69	84	69	70	79	87	88	86	87	79	63	68	44	45	48	53	49	54	53	47	51	44.7
	Minimum	37	36	43	32	29	36	52	52	32	48	45	42	51	57	38	32	41	47	46	50	63	53	49	35	45	48	56	54	53	47	51	44.7	
Hanover.....	Maximum	65	65	62	62	71	83	83	76	67	79	63	20	81	69	67	77	83	85	81	81	78	69	79	71	75	71	77	80	71	57	76	73.5	
	Minimum	45	32	46	35	29	44	59	49	35	49	40	46	60	55	39	37	83	85	81	81	78	69	79	71	75	71	77	80	71	57	76	73.5	
Keene.....	Maximum	69	66	66	68	74	85	88	83	72	81	72	78	83	72	70	76	86	87	83	84	78	66	80	75	75	71	82	82	77	58	75	76.3	
	Minimum	46	30	48	39	31	48	52	53	34	46	41	46	61	53	39	34	42	40	47	53	62	55	53	39	54	52	50	61	58	45	63	47.5	
Plymouth.....	Maximum	65	65	62	62	69	84	84	75	69	77	64	65	79	68	70	78	87	84	84	83	81	68	60	78	75	70	70	78	66	55	75	72.9	
	Minimum	45	36	48	34	29	35	50	50	44	46	43	44	50	41	31	45	46	44	54	62	53	40	44	45	47	46	55	46	45	50	45.2		
Vermont.																																		
Burlington.....	Maximum	52	62	54	50	70	78	82	67	60	71	53	72	69	67	62	72	82	84	80	81	70	73	72	68	70	66	77	66	68	65	68	68.7	
	Minimum	38	33	41	34	32	59	65	43	43	42	38	55	54	51	41	40	53	60	61	63	52	50	51	40	52	49	57	57	52	55	56	48.8	
Enosburg Falls.....	Maximum	58	64	56	52	71	80	83	69	58	72	64	58	72	67	67	75	86	87	84	82	76	77	71	71	72	72	77	70	68	69	71.5		
	Minimum	42	27	40	37	28	65	65	45	34	47	35	49	65	51	40	50	53	52	63	63	69	46	65	35	44	54	57	60	59	59	49.6		
Northfield.....	Maximum	50	62	58	54	71	81	82	65	61	74	56	63	67	66	62	75	82	87	84	82	80	76	77	70	73	68	74	74	68	54	74	70.0	
	Minimum	41	30	41	31	27	45	54	45	39	48	36	45	60	45	42	32	47	47	50	53	50	49	54	34	47	49	51	48	46	49	52	44.7	
St. Johnsbury.....	Maximum	71	64	63	59	69	84	82	81	82	75	65	65	81	68	67	79	87	88	87	85	79	75	75	75	75	74	71	72	71	65	70	74.3	
	Minimum	48	28	43	35	28	43	51	52	42	47	37	45	57	52	45	33	51	49	50	56	60	49	75	75	75	75	75	75	62	70	70.3		
Wells.....	Maximum	60	60	5																														







## Daily Precipitation for May, 1918—Continued from page 37.

Stations.	Watersheds.	Day of month.																															Total.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Rhode Island.																																			
Block Island ***	Coast	.52					T.		T.		.28	.01			T.							.20	.57	.07		.76	T.	.02	.11		.01	.33	.04	2.89	
Bristol	do	.67					.10		T.			.01			.02							T.		.20				.02	.31	.09		T.	.36	.06	1.45
Greene	do	1.38							T.			.08			.16								.14	.23								.27		2.66	
Hope Valley	do	1.48							T.		.10			.18									.18	.18	.50	.49	.50		.10			.20	.01	3.51	
Kingston	do	.76					.05		T.						T.							.02	.30	.15									2.09		
Narragansett Pier**	do	.70					.04		.03		.10		.10		.02						.02	.14	.48	.30		T.	.27	.08		T.	.22	.02	2.44		
Pawtucket	do	1.29					.02		.01						.04							*	.16	.25				.29	.03	.05	.15		.13	2.42	
Providence**	do	1.13					.01		T.		.02		T.		.04							.02	.02	.27		.26	T.	.05	.04	.02	.12	.07	2.07		
Wallum Lake	do																																		
Connecticut.																																			
Bridgeport	Coast	1.16					.01		.01		.23				.49							.80	.05	.14			T.	.04	.02		.37	.55	3.87		
Canton	Connecticut	.94		T.			.04	T.							.48							1.22	T.	.06		.60		.20		T.	.29	.15	3.98		
Colechester	Coast	1.39					T.				.18				.24							T.	.25	.43			.44	.11		T.	.27		3.20		
Croton Hill	Housatonic	.75					.05		.05		.15	.01			1.30							.25	.05			.75	.35				.38	.40	4.44		
Danielson	Coast	.25					.03		.03						.15							T.	.10	.75			.10				.10	.10	1.41		
East Hartland	Housatonic	.80					T.			T.				.70	.08							.68	.07			.74	.11			.16	.06		3.40		
Falls Village	Housatonic	.69	T.						.16		T.		.07	.70	.76							.16	.06			.44	.06	.30			.25	.44	3.93		
Hartford**	Connecticut	1.03					.39		.01		.09		T.		.22							.67	.01	.13		.42	.03	.14		.06	.20	.06	3.46		
Lake Konomocff.	Coast	.35								.20					.35							.47	.01	1.47	.02		1.19	.18			.38	.02	4.28		
New Haven***	do	1.34		T.		T.	T.		T.		.16		T.		.35							.39	.01	.17		.08	.07	.16		T.	.29	.80	3.82		
New London	do								.18		.20				.34							.30	.35	.05			1.05				.70		3.77		
N. Grosvenor Dale	do	1.03	.07				.16				.07				.42								.37	.04			.32	.12			.28	.08	2.96		
Norwalk	do	1.04					.09		.01		.35				.30								.46	.29			.01				.37	.12	3.04		
Southington	do	1.00							T.		.05				.10							T.	.05	.20			.25	.25		T.	.20	.10	2.20		
Storrs	Coast																																		
Torrington	Housatonic																																		
Voluntown	Coast																																		
Waterbury	Housatonic	.99	.30								T.	.50	.10	T.		.24						.08	.06	.62			.25	.71			.30	.49	4.64		

## Special River Rainfall Stations

Maine.																																	
Brownville	Saco	.52	.27					.35				T.		.65	.15						.04						.03	.25		.25	2.51		
Mattawamkeag	Penobscot	.06	.50					.47	T.		.05		T.	.42	.10							T.	T.					.55	T.	.28		2.43	
New Hampshire.																																	
Franklin Junction	Merrimac	.59									.50			.54													.35	.10		.23	2.28		
Lancaster	Connecticut	.32	.10	.04				.02	.03		.61		.32	.61							.04	T.	.06	T.			.50			.40	.12	3.17	
Manchester	Merrimac	.51	.11							.09				.25	.07						T.	.21	T.	T.			.19	.10	.05	.13		1.71	
Sewall's Falls #	do	.74								.28				.99							.13					.15		.19		.05		2.53	
West Stewartstown	Connecticut	.46	T.					T.		.03	.65	T.	T.	1.00							.20	.10	T.					T.	T.	.35	T.	2.79	
Vermont.																																	
Bellow's Falls	Connecticut	.39	T.					.03			.73			.02	2.41	.03					.02	.30				.39	.25	.21		.18	T.	4.96	
Wells River	do	.50						.49			.30			.18	.24						.12					.48	.20	.22			.60	.79	
White River Junction	do	.53	T.	T.				.33			.26			.01	.73	T.					.16	.44	T.	T.			.21	.20	.01		.12	T.	3.00
Massachusetts.																																	
Holyoke	Connecticut	.70	.13					.19	.01	T.				.61	.02						.09	.05	.03				.36	.20			.10		2.49

## Daily Evaporation (inches) and Wind Movement (miles).

Gardiner, Me. . . . .	Evaporation . . . . .	.13	.19	.23	.16	.12	.14	.26	.28	.14	.19	.14	.03	.05	.22	.25	.17	.20	.26	.18	.17	.18	.13	.29	.21	.22	.09	.10	.13	.10	.07	5.03	
	Wind movement . . . . .	100	91	79	11	110	80	61	124	119	91	121	51	60	61	80	90	50	60	90	80	59	90	60	90	70	90	60	60	30	79	2,349	
Dorchester Cent. . . . .	Evaporation . . . . .	.162	.147	.197	.170	.117	.123	.177	.222	.282	.212	.210	.180	.123	.138	.043	.188	.184	.163	.216	.145	.196	.024	.097	.142	.205	.052	.122	.060	.086	.104	.059	4.546
ter, Mass. . . . .	Wind movement . . . . .	17	81	59	53	43	24	69	39	72	51	82	28	32	47	14	31	22	17	30	28	36	10	11	65	35	44	22	18	23	24	18	1,151

I Observations taken at 6 p. m.

III Observations taken at 7 a. m.

See temperature and precipitation data in Climatological Tables.

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

T. Precipitation is less than 0.01 inch rain or melted snow.

\* Precipitation indicated in that of following day.

† Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.; Sewall's Falls, Concord, N. H.

## Comparative Data for New England for May.

Year	Temperature.			Precipitation.			Weather.			Wind.			Year	Temperature.			Precipitation.			Weather.			Wind.									
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	
1888...	53.6	78	18	1.49	17	0	0	5	13	13	ne.	8.8	36	e.	1904...	58.8	91	20	3.52	2.64	10	0	15	8	8	65	sw.	9.2	46	w.		
1889...	59.2	85	25	3.57	10	0	0	9	13	9	s.w.	8.6	50	ne.	1905...	54.6	86	22	1.82	1.33	10	T.	12	10	9	62	nw.	10.1	57	w.		
1890...	55.3	86	22	5.69	15	0	0	8	11	12	s.	13.3	60	ne.	1906...	55.1	96	21	4.96	3.50	11	0	12	9	10	59	sw.	9.7	60	s.		
1891...	54.9	82	17	2.18	9	0	0	8	14	9	s.w.	9.3	55	sw.	1907...	49.9	91	17	3.07	2.50	10	T.	9	10	12	46	nw.	10.0	50	nw.		
1892...	54.6	80	17	5.23	15	T.	0	6	10	15	s.w.	10.8	58	e.	1908...	57.2	92	21	4.70	3.16	11	T.	11	9	11	55	sw.	10.6	56	nw.		
1893...	51.9	98	25	5.32	14	0	0	11	9	11	sw.	10.2	58	s.	1909...	53.7	87	22	3.02	2.40	13	0	11	8	12	52	nw.	10.9	50	s.		
1894...	56.9	91	21	1.13	11	0	0	10	9	12	sw.	10.2	54	w.	1910...	54.7	92	22	2.73	1.80	12	0	10	9	12	49	sw.	9.8	39	sw.		
1895...	57.2	100	21	2.52	10	0	0	10	12	9	sw.	9.8	48	ne.	1911...	60.6	101	16	1.15	2.00	6	0	16	8	7	7	61	sw.	9.4	41	w.	
1896...	58.5	96	22	2.38	9	0	0	10	13	8	sw.	10.6	57	w.	1912...	56.1	88	22	5.09	2.98	13	0	11	8	12	7	52	sw.	10.5	50	s.	
1897...	55.6	85	17	1.80	2.77	14	0	8	8	15	39	sw.	11.0	60	s.	1913...	53.2	92	18	3.32	2.10	9	0	13	8	7	7	52	sw.	10.3	48	nw.
1898...	54.6	86	14	1.43	2.87	15	0	8	10	13	18	ne.	9.6	72	ne.	1914...	56.8	99	21	2.15	2.64	6	T.	16	8	7	7	60	nw.	10.3	48	nw.
1899...	55.7	94	22	1.79	2.20	9	0	14	7	10	60	sw.	9.7	50	sw.	1915...	52.8	86	22	2.22	2.20	10	0	12	9	10	56	nw.	10.1	50	nw.	
1900...	54.1	96	15	1.91	1.40	9	T.	12	10	9	53	n.w.	10.5	66	n.w.	1916...	54.8	89	24	3.85	1.62	11	0	10	11	10	49	nw.	10.3	63	w.	
1901...	54.6	91	21	5.83	3.20	12	0	10	8	13	42	ne.	10.3	55	e.	1917...	47.8	86	20	3.41	1.62	13	2.4	8	8	15	45	nw.	12.0	63	nw.	
1902...	54.1	92	19	2.63	2.50	10	0	14	8	8	57	n.w.	10.1	52	w.	1918...	59.7	95	23	2.75	1.65	11	0	13	9	9	57	sw.	11.0	65	w.	
1903...	57.3	96	12	0.68	1.81	4	0	20	7	4	78	n.w.	8.7	51	s.																	



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U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

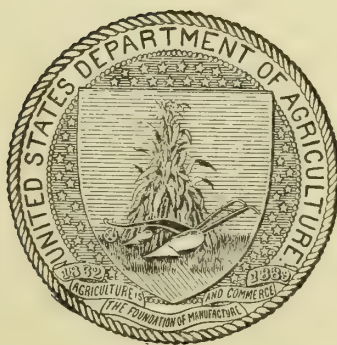
NEW ENGLAND SECTION

JUNE, 1918

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BY  
JOHN W. SMITH  
METEOROLOGIST

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
JULY 19, 1918



Departure of the Mean Temperature from the Normal, June, 1918.





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

Vol. XXX.

BOSTON, MASS., JUNE, 1918.

No. 6.

## GENERAL SUMMARY.

The feature of the month was the unusually late killing frost that occurred on the 20th and 21st, which did great damage to tender vegetation over a large portion of the section, particularly in low places. At many stations it was the latest killing frost of record. In the northern States beans and corn were killed and potatoes injured. In the cranberry section of Massachusetts great damage was done on dry bogs, and it is estimated that one-third of the prospective crop was destroyed. The average temperature for the section,  $60.7^{\circ}$ , was one of the lowest of record for the month. Warm and seasonable temperature prevailed during the first four days, but afterward the temperature was generally below the normal, with cool nights, and but few days with maximum of  $80^{\circ}$ . The rainfall was somewhat above the normal and well distributed over the section, but rather unevenly through the month, the heavy rain on the 22d giving more than one-half the total for the month at a large number of stations. There was an average amount of sunshine. The number of thunderstorms was less than usual. Vegetation, which was well ahead of the normal at the beginning of the month, made rather slow progress where not damaged by frost.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 13 stations reporting, was 29.93 inches, which was 0.08 inch below the mean for June, 1917, and 0.03 inch below the normal for the month. The highest monthly mean was 29.94 inches, at Portland, Me., Block Island, R. I. and New Haven, Conn.; the lowest, 29.90 inches, at Eastport, Me. The highest recorded was 30.32 inches, at Portland, Me. on the 6th; the lowest, 29.22 inches, at Burlington, Vt. on the 12th. The monthly range for the section was 1.10 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 81 stations, was  $60.7^{\circ}$ , which was  $2.5^{\circ}$  below the mean for June, 1917. During the past 30 years the average June temperature has been higher in 27, lower in 2 years, and the same in 1 year, as that of the present month. The highest average temperature during this time was  $68.1^{\circ}$ , in 1892; the lowest,  $59.5^{\circ}$ , in 1903. The average temperature for the several States of the section was as follows: Maine,  $58.1^{\circ}$ ; New Hampshire,  $58.4^{\circ}$ ; Vermont,  $59.4^{\circ}$ ; Massachusetts,  $62.7^{\circ}$ ; Rhode Island,  $62.6^{\circ}$ ; Connecticut,  $63.8^{\circ}$ . The average temperature for the section was  $3.4^{\circ}$  below the normal for the month. The departures from the normal for the several States were as follows: Maine,  $-3.4^{\circ}$ ; New Hampshire,  $-5.0^{\circ}$ ; Vermont,  $-4.6^{\circ}$ ; Massachusetts,  $-2.8^{\circ}$ ; Rhode Island,  $-2.2^{\circ}$ ; Connecticut,  $-2.4^{\circ}$ . The highest monthly mean was  $66.2^{\circ}$ , at Waterbury, Conn.; the lowest,  $52.4^{\circ}$ , at Pittsburg, N. H. The highest recorded was  $95^{\circ}$ , at Springfield, Mass. on the 1st; the lowest,  $26^{\circ}$ , at Pittsburg, N. H. on the 20th. The greatest monthly range was  $62^{\circ}$ , at a number of stations; the least,  $31^{\circ}$ , at Block Island, R. I. The greatest daily range was  $49^{\circ}$ , at Patten, Me. on the 24th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 13 stations reporting, was 75 per cent, which was 6 per cent below the average for June, 1917, and 1 per cent below the normal for the month.

The highest monthly average was 86 per cent, at Block Island, R. I.; the lowest, 66 per cent, at Boston, Mass.

## PRECIPITATION.

The average for the section, as determined from the reports of 81 stations, was 3.72 inches, which was 2.42 inches below the average for June, 1917. During the past 30 years the average June precipitation has been greater in 8 and less in 22 years than that of the present month. The greatest average June precipitation during this time was 6.70 inches, in 1893; the least, 0.93 inch, in 1912. The average precipitation for the several States of the section was as follows: Maine, 3.67 inches; New Hampshire, 3.36; Vermont, 3.87; Massachusetts, 3.10; Rhode Island, 3.90; Connecticut, 4.10. The average for the section was 0.54 inch above the normal for the month. The departures from the normal for the several States were as follows: Maine,  $+0.27$  inches; New Hampshire,  $-0.08$ ; Vermont,  $+0.37$ ; Massachusetts,  $+0.44$ ; Rhode Island,  $+1.03$ ; Connecticut,  $+1.46$ . The greatest monthly amount was 6.10 inches, at New Haven, Conn.; the least, 1.94 inches, at Boston, Mass. The greatest amount in 24 hours was 4.00 inches, at Danielson, Conn. on the 22d. The average number of days with .01 inch or more of precipitation was 8, 7 less than the average for June, 1917, and 1 less than the normal for the month.

## WIND.

The prevailing direction of the wind was from the southwest, which is the normal direction for the month. The greatest monthly wind movement at any station was 12,991 miles, at Blue Hill Observatory, Hyde Park, Mass.; the least, 2,728 miles, at Concord, N. H. The average hourly wind movement was 10.0 miles, which was 1.0 mile more than the average for June, 1917, and 1.2 miles above the normal for the month. The highest recorded velocity was 61 miles per hour from the southeast, at Blue Hill Observatory, Hyde Park, Mass. on the 22d. This is greater than the usual maximum velocity for the month.

## SUNSHINE AND CLOUDINESS.

The average number of clear days was 13; partly cloudy, 8; cloudy, 9, which compares with the normal for the month of 12 clear, 9 partly cloudy, and 9 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 60, which was 13 per cent above the average for June, 1917, and normal for the month, as determined from the records of the past 26 years. The greatest percentage of possible sunshine at any station was 70, at New Haven, Conn.; the least, 45, at Northfield, Vt. The greatest percentage of possible sunshine in any June during the past 26 years was 78, in 1908; the least, 46, in 1893 and 1903.

## DATES OF MISCELLANEOUS PHENOMENA.

*Auroras*.—Bethlehem, N. H., 28; Somerset, Mass., 8.

*Halos, Solar*.—Eastport, Me., 6, 9, 10, 11, 16, 21, 27; Van Buren, Me., 11; Northfield, Vt., 21; Blue Hill, Mass., 11, 16, 21, 25; Boston, Mass., 1, 9, 11, 21, 27; Somerset, Mass., 16, 17, 21; New Haven, Conn., 3, 21, 24.

*Thunderstorms* (dates and number of observers reporting on each)—Maine: 1st, 1; 12th, 3; 19th, 1; 23d, 1; 29th, 2; 30th, 1. New Hampshire: 1st, 4; 12th, 10; 13th, 1; 14th, 2; 17th, 1; 29th, 5; 30th, 1. Vermont: 1st, 3; 6th, 1; 12th, 7; 13th, 3; 14th, 2; 17th, 1; 28th, 1; 29th, 4; 30th, 1. Massachusetts: 1st, 3; 3d, 1; 6th, 1; 7th, 1; 11th, 1; 12th, 19; 13th, 1; 14th, 7; 15th, 1; 19th, 8; 22d, 1; 23d, 1. Rhode Island: 1st, 1; 5th, 1; 12th, 2; 14th, 3; 16th, 1; 19th, 4; 22d, 2. Connecticut: 5th, 4; 6th, 1; 7th, 4; 12th, 8; 14th, 6; 15th, 1; 19th, 1; 22d, 6.



## Climatological Data for June, 1918.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				No. of days.				Prevailing direction of wind.	Observer.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.			Cloudy.
Maine.																				
Bar Harbor	Hancock	20	32	58.2	-1.9	91	2	38	21	44	4.10	+1.33	1.00	0	9	23	2	5	w.	Mount Desert Nurseries. T. H. West.
Cornish	York	778	63			85	2	40	11	43	3.26	+0.02	1.16	0	12	10	9	11	s.	U. S. Weather Bureau.
Eastport	Washington	53	46	53.7	-0.7	88	2	40	21	41	4.98	+1.56	2.17	0	7	10	7	13	nw.	State Normal School.
Farmington	Franklin	450	21	59.2	-3.3	88	2	32	21	41	4.98	+1.56	2.17	0	7	10	7	13	nw.	State Normal School.
Gardiner	Kennebec	163	26	60.6	-4.6	89	2	37	20	35	4.62	+1.49	1.58	0	8	10	10	10	sw.	Samuel D. Soule.
Greenville	Piscataquis	1,140	14	55.6		82	2	33	21	36	3.38	-0.31	1.14	0	11	15	2	13	n.	U. S. Weather Bureau.
Houlton	Aroostook	362	16	56.2		86	2	31	19	40	2.00	-1.29	1.05	0	2	17	7	6	w.	Bangor & Aroostook RR.
Lewiston	Androscoggin	185	35	59.4	-5.0	86	2	40	21	29	3.83	+0.41	2.28	0	6	7	14	9	s.	Union Water Power Co.
Madison	Somerset	257	15	58.4		86	3	34	21	35	3.93	+0.05	2.30	0	8	12	8	10	nw.	Great Northern Paper Co.
Millinocket	Penobscot	386	15	56.8		87	2	31	19	41	3.45	+0.24	2.16	0	8	20	2	8	w.	Great Northern Paper Co.
North Bridgton	Cumberland	450	25	59.1	-5.5	87	2	35	21	35	5.44	-2.01	2.71	0	10	9	8	13	se.	C. L. Chadbourne.
Orono	Penobscot	129	49	59.2	-3.1	89	3	35	21	38	2.41	-0.93	0.90	0	8	17	8	5	sw.	Maine State College.
Patten	do	550	16	59.0		90	4	28	20	49	2.80	-1.45	1.00	0	3	10	2	13	sw.	Bangor & Aroostook RR.
Portland	Cumberland	99	47	58.8	-3.8	89	2	41	20	31	2.73	-2.63	1.76	0	9	9	8	13	w.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	9			84	2	38	21	30	4.30	+1.10	2.71	0	7	18	5	7	nw.	E. M. Libby.
Rumford	Oxford	505	25	59.3	-4.3	84	2	38	21	30	4.30	+1.10	2.71	0	7	18	5	7	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	14	55.4		82	2	28	19	46	5.41	+1.45	1.70	0	11				sw.	Rev. J. M. Thomas.
Winslow	Kennebec	90	23	60.8	-1.9	91	30	34	21	41	2.15	-0.77	1.19	0	7	14	5	11	w.	Hollingsworth & Whitney
New Hampshire.																				
Alstead Center	Cheshire	1,120	14	60.4	-6.9	86	1	37	20	31	3.61	+0.56	2.00	0	9	19	4	7	nw.	Frank Dewing.
Berlin	Coos	1,090	21	57.0		85	2	30	19	39	3.08	-0.74	0.74	0	14	9	11	10	nw.	Brown Company.
Bethlehem	Grafton	1,470	26	57.4	-6.1	81	1	29	20	35	3.12	-0.61	0.79	0	11	13	6	11	w.	Benjamin Tucker.
Concord	Merrimack	350	57	60.9	-3.5	90	1	36	21	39	2.77	-0.57	1.58	0	7	13	11	6	se.	U. S. Weather Bureau.
Durham	Stafford	88	23	59.4	-4.0	88	2	33	21	43	2.74	-0.42	1.95	0	6	15	8	8	nw.	N. H. Agr. College.
Franklin	Merrimack	440	19	60.0	-3.3	90	1	28	20	43	3.68	+0.19	2.26	0	8	7	12	11	se.	Gilbert Hodges.
Glencoff	Grafton	1,650	5	55.9		82	1	32	20	35	4.19		1.36	0	12	14	7	9	nw.	State Sanatorium.
Grafton	do	863	32	56.6	-5.6	84	2	29	20	42	2.33	-1.08	1.70	0	6	18	4	8	nw.	P. R. Kimball.
Hanover	do	603	64	60.0	-5.0	88	1	31	20	37	4.04	+0.64	1.60	0	13	8	11	11	ne.	Dartmouth College.
Keene	Cheshire	506	33	60.0	-4.9	91	1	31	20	43	3.69	+0.93	1.45	0	9	14	8	8	sw.	Samuel Wadsworth.
Newton	Rockingham	126	30	59.6	-4.9	90	2	29	21	41	3.31	+0.31	1.89	0	7	10	14	4	nw.	W. C. Gale.
Pittsburg	Coos	1575	50	52.4		79	12	26	20	35	3.10		0.75	0	10	17	6	7	w.	Conn. Valley Lumber Co.
Plymouth	Grafton	500	30	59.2	-5.0	88	2	31	20	43	4.00	-0.11	1.85	0	6	17	0	13	e.	Mrs. Hattie G. Trow.
Vermont.																				
Bloomfield	Essex	404	11	57.6		83	30	28	20	45	4.69	+0.91	1.35	0	14	7	10	13	se.	Lyman Falls Power Co.
Burlington	Chittenden	404	11	59.8	-4.0	87	1	35	20	31	4.52	+1.26	1.62	0	13	9	11	10	s.	U. S. Weather Bureau.
Cavendish	Windsor	910	15	60.4		92	1	30	20	44	4.29	+0.83	1.95	0	7	9	12	9	.....	Colonial Power Co.
Chelsea	Orange	840	23	58.4	-2.9	86	1	27	20	42	2.97	-0.18	0.92	0	7	15	4	10	n.	W. F. Dewey.
Cornwall	Addison	517	25	62.5	-4.6	92	1	35	20	32	3.40	-0.05	0.80	0	10	17	5	8	sw.	C. H. Lane.
Enosburg Falls	Franklin	601	27	60.6	-4.9	87	1	29	20	40	4.89	+0.68	1.23	0	13	17	8	5	w.	J. W. Pomeroy.
Hyde Park	Lamoille	576	6	59.8		89	2	30	20	41	4.37		1.45	0	13	11	7	12	nw.	A. V. Wiswell.
Northfield	Washington	876	32	57.1	-5.6	87	1	28	20	38	3.16	-0.09	0.79	0	14	4	14	12	s.	U. S. Weather Bureau.
Rutland	Rutland	562	2	58.0		87	2	32	20	30	3.85		0.78	0	12	14	6	10	nw.	George H. Ross.
Somerset	Windham	2,096	7	54.2		83	1	28	19	36	4.12		1.52	0	13	13	12	5	sw.	Power Construction Co.
St. Johnsbury	Caledonia	711	25	61.3	-2.7	86	2	31	20	39	3.05	-0.31	0.70	0	12	12	11	7	n.	Fairbanks Museum.
Vernon	Windham	310	3	62.0	-5.8	90	1	38	20	35	3.29	-0.01	1.86	0	8	9	12	9	s.	Conn. River Power Co.
Wells	Rutland	750	27	60.0	-5.7	85	1	32	20	32	3.80	+0.46	0.95	0	8	10	13	7	s.	E. R. Pember.
Woodstock	Windsor	700	26	59.6	-5.4	88	1	29	20	43	3.73	+0.57	1.45	0	8	12	4	14	.....	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	29	63.0	-3.2	93	1	40	20	41	4.01	+0.78	2.18	0	9	14	7	9	s.	Mass. Agr. College.
Blue Hill	Norfolk	640	34	61.2	-3.1	88	1	41	20	28	2.64	-0.42	1.38	0	9	6	14	10	ne.	Blue Hill Observatory.
Boston	Suffolk	124	48	63.9	-1.9	92	2	47	20	26	1.94	-1.09	1.27	0	9	11	10	9	w.	U. S. Weather Bureau.
Chestnut Hill	do	124	38	62.1	-4.4	93	1	37	21	40	2.40	-0.72	1.67	0	10	21	0	9	.....	Met. Water Board.
Clinton	Worcester	370	22	62.2		86	2	41	20	26	4.00	+2.00	2.38	0	8				Do.	
Concord	Middlesex	139	28	61.7	-3.7	90	1	33	21	37	3.44	+0.47	1.88	0	8	11	10	9	sw.	Fred A. Tower.
Fall River	Bristol	200	52	63.6	-2.2	87	2	46	20	23	3.24	+0.73	2.00	0	9	7	22	1	nw.	C. V. S. Remington.
Fitchburg	Worcester	550	35	62.4	-4.2	91	1	42	20	34	4.39	+1.32	1.97	0	7	13	6	11	w.	Dr. A. P. Mason.
Framingham	Middlesex	160	33	65.0	-2.1	93	1	37	21	34	3.52	+0.68	2.43	0	6				Met. Water Board.	
Lawrence	Essex	51	34	63.2	-0.4	91	2	39	21	33	3.44	+0.36	1.89	0	7	5	21	4	w.	Essex Company.
Lowell	Middlesex	100	33	63.7	-3.1	89	1	39	21	30	2.71	-0.51	1.91	0	6				Props. Locks & Canals.	
Nantucket	Nantucket	47	32	60.6	-0.7	85	2	46	2	27	3.19	+0.78	2.15	0	6	7	13	10	sw.	U. S. Weather Bureau.
New Bedford	Bristol	88	106	60.6		89	2	39	21	31	2.97	+0.20	2.00	0	8	20	1	9	e.	City Engineer.
Plymouth	Plymouth	50	33	59.5		89	2	39	21	31	2.97	+0.20	2.00	0	8	20	1	9	e.	Miss L. B. Knapp.
Provincetown	Barnstable	40	31	62.7	-1.1	92	2	45	21	31	2.94	+0.70	1.93	0	6	22	2	6	ne.	Gideon Bowley.
Rockport	Essex	25	16	59.4		87	2	43	19	25	2.32		1.67	0	6	16	4	10	sw.	U. S. C. G. Station.
Rutland	Worcester	1,160	16	60.9		89	1	38	19	33	4.63		2.10	0	13	19	5	6	sw.	State Sanatorium.
Springfield	Hampden	199	8	64.8	-5.4	95	1	42	21	22	3.39	-0.30	2.11	0	7	6	13	11	nw.	U. S. Army.
Turners Falls	Franklin	200	32	63.4	-2.8	93	1	39	20	34	3.84	+0.76	2.22	0	7	10	12	8	sw.	Turners Falls Co.
Westboro	Worcester	298	44	64.8	-2.8	92	2	40	21	30	5.07	+2.08	3.48	0	7				w.	Miss E. W. Newcomb.
Williamstown	Berkshire	711	37	61.7	-4.4	87	1	37	20	34	3.04	-0.39	1.19	0	10	12	10	8	w.	Williams College.
Worcester	Worcester	518	26	64.8	-2.1	88	1	45												



Daily Precipitation for June, 1918.

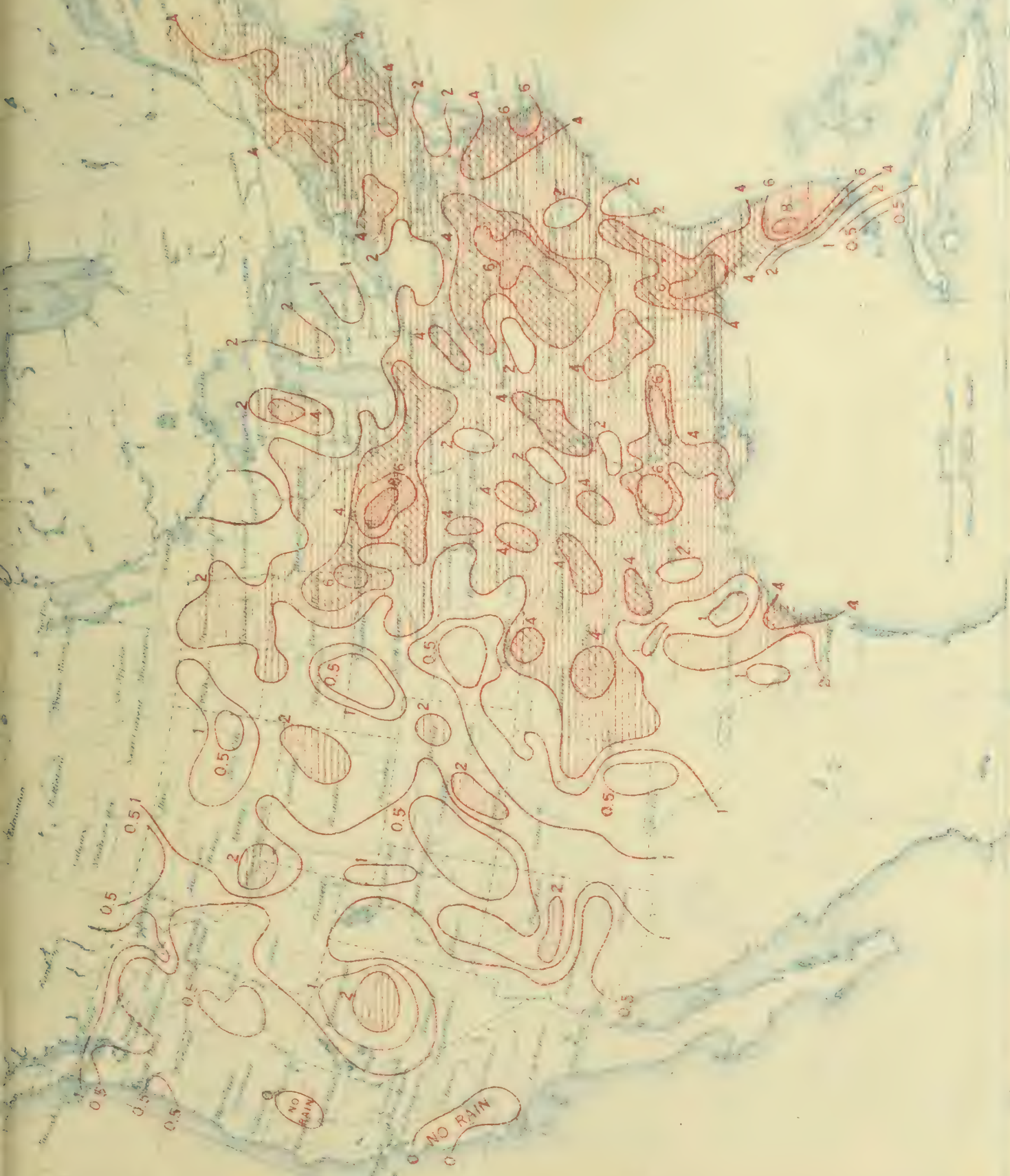
Stations.	Watersheds.	Day of month.																															Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Maine.																																		
Ashland	St. John	.03						.62						.61		.16			.01				.32	1.24	.11					.23			3.38	
Bar Harbor	Coast		.05			T.		1.00			.28		.87	.30	.08	.02		T.				.50	.80	.25									4.19	
Cornish	Saco																																	
Eastport***	Coast	.04						.94		.05		1.15	.01	.13	.01		.27	T.					.61	.23	T.	T.				T.	.01		3.26	
Eustis	Kennebec	.05			.02			.70	.06			.27	.19	.09	.01		.01						.53	.08	.01					.16	T.		2.35	
Farmington	do	T.						.97			.01		.32		.29	T.	T.	T.	.30				2.17	.91							.24		4.98	
Gardiner	do					.01																											1.52	
Greenville***	Penobscot	.05			T.			.73	.05			.32		.39	.03	.06	.06	T.	.04	T.	T.		1.14	.78	.05					T.			3.85	
Houlton	St. John													.12		T.							1.05										2.00	
Lewiston	Androscoggin	.08				T.	T.	.55		T.	.47		.34	.07									2.28	.33									3.83	
Madison	Kennebec							.78			.04		.16		.05			.09				T.	.01	2.30									3.93	
Millinocket	Penobscot						.22	.33				.43																		.07			3.93	
North Bridgton	Saco	.14			.01	.01		.37		.01	1.56		.10		.05		T.	T.				T.	.01	2.16	T.								3.45	
Orono	Penobscot							.05		.05			.24	.23	.09			.20						.20		.09							5.44	
Patten	do							.80					1.00																				2.41	
Portland***	Coast	.02				.01		.30		T.	.32		.15	T.				T.			.08		1.00										2.80	
Presque Isle	St. John																						1.76	.08					T.	.01			2.73	
Rumford	Androscoggin	.18						.65			.23		.22	T.																				
Van Buren	St. John	T.	.26	.02				.77					.58	.32			.05		.17				2.71	T.						.14			4.30	
Winslow	Kennebec	T.						.39			.11		.35	T.		.06		.06												.19			5.41	
																																	2.15	
New Hampshire.																																		
Alstead Center	Connecticut	.01			T.	.26	.04	.30			.19	.01	.16	.68	.10	.04		T.					2.00	.18									3.61	
Berlin	Androscoggin	.05					.34	.74			.03	.34		.24		.15		T.	.31				.32	.22	.08	.07				.43			3.08	
Bethlehem	Connecticut	.16						.79															.56	.28	.06					.52			3.12	
Brookline	Merrimack																																	
Concord***	do	T.			.27		T.	.39		T.	.26		.26		.01			T.					.11	1.42	T.				T.				2.77	
Durham	do							.33			.25		.09	.10									1.95			.02							2.74	
Franklin	do	.01			.04			.50		T.	.43		.42		.01			T.					2.26	T.			.01						3.68	
Glenciff	do	.31			T.	.08		.60		*	.65		.43		.08						.07	.02								.18			4.19	
Grafton	do	.10			T.			.28			.07		.17		.01								1.70										2.33	
Hanover	Connecticut	.13			T.	.04	.04	.30		T.	.16		.73		.03			.01					1.60	.07	.01	T.				.41	.01		4.04	
Keene	do				.02	.05	.07	.38			.38		.67		.05			T.	.30				1.45	.70									3.69	
Newton	Merrimack				.02		.03	.71			.15		.46		.05			T.					1.89	T.									3.31	
Pittsburg (a)	Connecticut							.74	.23				.75	.06	.22				.06					.67	.10	.07					.20	T.		3.10
Pittsburg (b)	do							.35	.10				.20	.90	.17	.15							.40	.50	.15	.08					.27		4.27	
Plymouth	Merrimack	.18				T.	T.	.50		T.	.70		.65	T.				T.		T.			1.85							.12			4.00	
Vermont.																																		
Bloomfield	Connecticut	.22						1.35	.04		.06		.40	.52	.44	.20		.22					.47	.22	.13					.12	.29		4.69	
Burlington***	Champlain	.71			T.		.01	.77			.14		T.	1.62	.04	.03		T.					.05	.21	.69		.05				.19	.01		4.52
Cavendish	Connecticut	.08				.19	T.	.53			.51	T.	.89	T.									1.95	.14									4.29	
Chelsea	do	.30						.77		T.	.30		.52										.92	.08						.08			2.97	
Cornwall	Champlain	.17			T.		T.	.32		.05	.30		.80	.05	.05			T.					.45	.40	T.					.81			3.40	
Enosburg Falls	do	.31					T.	.92		.04	.01		1.23	.40	.09	T.		.08	T.	T.			.29	.97	.05	.05				.45			4.89	
Hyde Park	do	.35						.37		.01	.09		1.45	.02	.09			.09					.40	.19	.06	.02				.23			4.37	
Northfield***	Champlain	.62			T.	.01	T.	.48		.13	.08		.79	.01	.02			T.				.08	.43	.08	T.	.02				.40	.01		3.16	
Rutland	do	.04				.08		.52	.03		.67		.62	.23	.05	T.		T.	.01				.62	.78	.21								3.85	
Somerset	Connecticut	.02	.02		.13	*		.62	.36		T.	.48		.32	.20	.09							1.52	.31	.05								4.12	
St. Johnsbury	do	.21				.25		.40	.05		.16		.33	.26	.11			.03	T.				.70	.03	.02	.01				T.	.38		3.05	
Vernon	do				.25			.40	.05		.16		.33	.26	.11							1.86	.22										3.29	
Wells	Champlain	.05			.14		T.	.48		.05	.47		.94					T.					.72	.95									3.80	
Woodstock	Connecticut	.06			.12		T.	*	.67		.66		.70		.07			T.					1.45										3.73	
Massachusetts.																																		
Amherst	Connecticut				.02	.04		.04	.69		T.	.06		.69	T.			.08					.25	2.18	.05								4.01	
Ashland	Merrimack						.01	.41			.04		.25		.02			.02					.25	2.28	.17								3.26	
Bakers Bridge†	do						.38	.45			.06		.55										1.97	.10									3.56	
Bedford	do	.08					.26	.45			.08		.40										1.74	.07									3.03	
Blue Hill	Coast				T.		.04	.33			.05		.36		.04			T.	.15			T.	.12										2.54	
Boston***	do	.17					.11	.25			.02		.09		.01			T.					.07	1.20	.02								1.94	
Brockton	Coast																																	
Chestnut Hill	do						.05	.33		.05	.03		.16		.04			T.	.08				1.14	.53	.04								2.40	
Clinton	Merrimack						.40	.30			.08		.60		.17						.07		*	2.38									4.00	
Concord	do	.16			T.		.50	.46			.05		.27								.04		1.88	.08	T.								3.44	
Fall River	Coast							.45			.27	.27	.20		.02				.01	.01			2.00	.01						</				



## Daily Temperatures for June, 1918.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean	
Maine.																																	
Bangor.....	Maximum	72	81	88	79	71	67	60	70	75	71	71	62	68	67	68	64	65	78	65	68	66	55	67	65	76	74	63	61	62	74	69.2	
Bangor.....	Minimum	48	47	49	46	35	41	48	51	45	39	41	41	57	59	41	43	54	50	43	42	38	47	50	49	46	46	45	43	48	50	47.1	
Eastport.....	Maximum	57	57	54	45	37	42	46	47	42	46	41	41	45	43	48	46	46	45	42	41	41	33	45	44	48	46	46	46	46	46	45.0	
Eastport.....	Minimum	36	38	31	25	22	27	31	30	27	26	25	25	25	26	28	26	33	32	32	32	32	32	32	32	32	32	32	32	32	32	32	
Farmington.....	Maximum	74	88	85	80	74	71	74	73	75	68	73	69	61	70	67	74	71	75	72	65	62	61	62	66	80	79	73	73	65	84	71.8	
Farmington.....	Minimum	34	38	35	30	28	30	33	48	48	49	39	30	45	47	46	36	51	38	36	33	32	32	32	32	32	32	32	32	32	32	32	
Millinocket.....	Maximum	81	84	87	80	74	71	74	73	75	68	73	69	61	70	67	74	71	75	72	65	62	61	62	66	80	79	73	73	65	84	72.7	
Millinocket.....	Minimum	56	54	57	46	32	41	54	51	46	49	41	49	53	49	44	41	53	45	42	37	37	37	37	37	37	37	37	37	37	37	37	
Orono.....	Maximum	72	82	74	68	70	72	71	64	64	68	71	63	56	60	64	69	68	70	69	64	62	61	61	61	61	61	61	61	61	61	61	
Orono.....	Minimum	48	38	43	39	35	35	42	42	50	43	38	40	47	45	48	33	51	44	34	35	33	33	33	33	33	33	33	33	33	33	33	
Portland.....	Maximum	76	80	82	65	67	58	77	72	77	60	64	61	63	70	69	69	71	71	67	59	61	61	61	61	61	61	61	61	61	61	61	
Portland.....	Minimum	56	58	65	51	51	48	54	51	52	49	42	50	52	49	50	47	53	53	48	41	45	52	51	51	53	53	48	48	50	53	50.9	
Presque Isle.....	Maximum	75	84	78	70	72	68	73	68	68	64	72	63	61	68	64	72	64	70	63	61	66	57	62	64	76	75	72	64	68	80	68.8	
Presque Isle.....	Minimum	47	61	62	46	51	41	57	50	48	50	44	53	50	48	47	42	54	44	42	40	38	52	52	52	51	48	46	48	52	59	49.8	
Rumford.....	Maximum	68	72	75	70	67	76	64	63	65	62	68	65	65	50	57	66	68	66	59	66	69	65	60	61	67	78	78	76	69	78	67.7	
Rumford.....	Minimum	54	54	55	35	35	30	40	38	52	33	33	46	47	50	43	31	59	32	28	37	39	46	44	44	39	36	48	48	58	54	43.1	
New Hampshire.																																	
Alstead Center.....	Maximum	86	83	79	74	74	68	70	67	67	63	71	67	62	66	65	71	76	69	68	64	62	60	58	69	75	73	72	71	75	85	70.5	
Alstead Center.....	Minimum	61	68	59	48	60	57	59	44	49	53	45	53	47	43	43	43	43	49	48	37	39	47	47	47	48	54	43	46	56	57	50.2	
Bethlehem.....	Maximum	81	80	75	67	71	69	72	66	67	67	71	72	58	67	65	74	66	69	59	62	63	58	55	65	74	77	72	72	77	77	68.9	
Bethlehem.....	Minimum	59	65	59	36	45	43	57	42	47	48	40	53	45	42	42	39	53	40	36	29	36	47	44	45	47	44	44	41	55	56	46.0	
Concord.....	Maximum	90	88	81	72	73	66	76	70	72	58	72	71	62	71	69	79	79	72	68	66	65	60	59	70	77	73	70	62	78	85	71.7	
Concord.....	Minimum	59	73	62	52	63	53	53	51	51	45	54	49	55	49	45	44	40	53	50	44	37	36	48	53	49	45	50	43	47	53	56	50.1
Franklin.....	Maximum	90	90	83	74	73	66	76	72	72	63	75	70	61	72	73	80	81	74	69	68	67	59	59	71	83	77	74	68	80	86	73.7	
Franklin.....	Minimum	56	65	54	46	53	48	55	48	39	53	44	55	47	39	38	37	37	40	39	28	33	36	52	50	42	45	41	42	53	57	46.4	
Hanover.....	Maximum	88	86	79	70	73	66	76	70	67	62	73	73	61	69	64	79	70	72	63	66	67	60	58	70	78	78	73	72	79	85	71.6	
Hanover.....	Minimum	58	67	55	45	51	50	59	47	46	51	48	55	52	46	42	39	48	46	42	31	34	46	46	49	46	45	43	42	58	61	48.3	
Keene.....	Maximum	91	87	78	74	76	70	73	71	72	66	75	71	65	70	72	80	81	73	69	65	69	63	54	71	76	76	73	70	76	86	73.1	
Keene.....	Minimum	56	63	50	46	50	55	60	39	41	55	51	55	54	37	39	37	50	46	37	31	33	47	47	44	49	46	42	40	58	58	47.0	
Plymouth.....	Maximum	83	88	80	70	75	66	76	73	69	60	75	70	60	69	69	82	74	75	65	66	66	60	57	73	81	77	72	70	75	82	71.9	
Plymouth.....	Minimum	56	62	45	40	52	48	56	43	39	53	43	55	51	44	36	39	48	40	44	34	34	46	49	49	44	44	44	41	54	60	46.6	
Vermont.																																	
Burlington.....	Maximum	87	84	75	60	70	69	71	69	61	66	73	73	56	67	65	76	65	65	72	57	62	69	58	52	70	74	79	76	78	77	69.8	
Burlington.....	Minimum	65	66	54	43	50	51	48	48	52	48	42	54	48	49	48	45	38	45	42	35	44	49	44	51	53	50	55	55	59	47	49.9	
Enosburg Falls.....	Maximum	87	85	77	70	70	73	72	67	65	68	75	76	57	66	63	78	76	71	25	66	68	54	57	68	76	83	78	79	78	86	72.1	
Enosburg Falls.....	Minimum	65	71	69	35	40	43	60	44	50	45	55	56	46	42	38	56	38	37	29	35	49	44	49	54	69	58	59	60	52	52	49.1	
Northfield.....	Maximum	87	84	76	64	71	63	71	67	65	67	71	73	52	67	63	71	66	69	58	62	65	57	51	67	75	77	73	73	78	82	69.0	
Northfield.....	Minimum	61	62	54	42	48	44	46	46	53	40	34	54	44	40	36	44	38	33	28	33	45	46	46	46	46	46	43	44	45	58	57	45.2
St. Johnsbury.....	Maximum	82	86	85	79	77	76	74	74	68	71	75	74	65	67	68	76	73	71	67	68	68	59	67	80	84	84	84	76	79	85	74.6	
St. Johnsbury.....	Minimum	58	69	54	42	48	43	59	47	46	50	44	56	51	45	44	40	55	42	41	31	33	47	46	47	44	46	46	46	58	60	48.0	
Wells.....	Maximum	85	82	76	66	74	70	70	70	65	65	66	74	74	58	72	66	75	72	74	62	64	66	62	55	70	75	76	76	77	85	71.1	
Wells.....	Minimum	63	63	54	44	50	53	55	42	48	50	46	54	40	46	46	46	56	44	44	32	40	46	44	46	46	46	46	46	46	46	46	48.8
Massachusetts.																																	
Amherst.....	Maximum	93	89	81	78	78	72	70	84	77	68	76	73	64	72	74	82	82	76	74	70	69	64	55	74	77	77	74	72	74	89	74.9	
Amherst.....	Minimum	69	68	62	52	51	58	57	50	45	54	56	52	48	44	41	54	50	42	40	40	52	49	46	47	49	49	49	45	51	60	51.0	
Blue Hill.....	Maximum	88	87	80	75	66	68	71	70	77	63	70	72	61	69	70	76	77	72	61	50	65	63	60	69	73	63	60	52	75	72	69.5	
Blue Hill.....	Minimum	60	74	68	55	54	53	59	49	50	50	49	52	51	49	51	53	58	51	41	46	50	48	47	59	53	49	48	50	56	56	52.9	
Boston.....	Maximum	89	92	85	76	69	66	76	75	81	64	64	78	65	74	76	77	82															







## Daily Precipitation for June, 1918—Continued from page 45.

Stations.	Watersheds.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
<i>Rhode Island.</i>																																	
Block Island ***	Coast					T.	.01	.65			.30	.21	.10						.03			.01	3.54	T.					T.				4.84
Bristol	do						.42			*	.44	.18		.03					.01	T.			1.84	T.								2.92	
Greene	do						1.04				.66			.20	.14					.10			2.85	.06								5.05	
Hope Valley	do						.58				.64				.16			.20		.12			2.99									4.69	
Kingston	do						.60				.40		.27	.17					.20	.15			2.92	T.								4.71	
Narrag'sett Pier***	do										*	.11	.37						.05	T.		*	2.00	T.								3.08	
Pawtucket	do						T.	.55			.03	.15	.27		T.				T.	.05			12.02	.02		T.						3.12	
Providence***	do						T.	.46																									
Wallum Lake	do																																
<i>Connecticut.</i>																																	
Bridgeport	Coast					.03	1.25				.38	.30	.24										3.01			.06						5.27	
Canton	Connecticut						.52				.10		.70	.20									1.70	T.								3.22	
Colchester	Coast					.03	.87				* .90	.45		.07									2.36	.05								4.73	
Cream Hill	Housatonic					T.	.01	.82			.10		.85	.45									.95	.05		T.						3.23	
Danielson	Coast						.50				T.	.02	.66		T.					.25			4.00									5.43	
East Hartland	do						.72					.42	.06									1.58	.63									3.41	
Falls Village	Housatonic						.90				.03		.60	.32							.50	.51		.01		T.						2.90	
Hartford ***	Connecticut					T.	T.	.50			.01	.01	.20	.25								3.20	.01	T.								4.36	
Lake Konomocff.	Coast			.09			.85					.38	.20									2.69	.24	.04								4.49	
New Haven***	do				.11	1.03				.69		.34	.01						T.			14.375	T.		.03				T.			6.10	
New London	do						.95					.45	.20									3.28										4.88	
N. Grosvenor Dale.	do						.67				.08	.03	.29	.08					.08		.27		1.67	.05								3.22	
Norwalk	do						.83				*	.48	.23									*	1.84			.02						3.40	
Southington	do			T.			.25				.05	.50	.50	T.									2.35	.05								3.70	
Storrs	Coast										.02	.78	.10	.09									3.10	.20								4.29	
Torrington	Housatonic											.93	.18	.13									2.90	.05								5.06	
Voluntown	Coast						.87					.93	.18	.13									2.90	.05								5.06	
Waterbury	Housatonic						.68				.10	.60	.43	.80	T.	.14							1.86	.07								4.68	

## Special River Rainfall Stations.

Maine.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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## Daily Evaporation (inches) and Wind Movement (miles).

Gardiner, Me.	Evaporation	.08	.27	.31	.30	.18	.18	.55	.30	.16	.08	.17	.12	.10	.19	.17	.18	.10	.24	.24	.19	.19	.07	.00	.39	.16	.23	.30	.07	.10	.12	5.74
Dorchester Center, Mass.	Wind movement	41	60	90	89	40	30	100	111	50	39	40	70	30	120	50	51	50	50	49	60	50	70	80	81	59	50	50	30	50	30	1,802
	Evaporation																															
	Wind movement																															

[ Observations taken at 6 p. m.

[ Observations taken at 7 a. m.

See temperature and precipitation data in Climatological Tables.

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations.

\*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

T. Precipitation is less than 0.01 in rain or melted snow.

\* Precipitation indicated in that of following day.

†† Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.; Sewall's Falls, Concord, N. H.

## Comparative Data for New England for June.

Year	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.								
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888	64.4	101	27	2.89	10	0	0	9	16	5	...	sw.	8.4	48	sw.	1904	63.1	98	30	3.06	6.15	9	0	13	8	9	61	sw.	7.9	42	e.
1889	65.4	98	25	3.70	11	0	0	9	12	11	...	sw.	8.6	42	sw.	1905	62.3	95	26	4.54	3.74	12	0	10	9	11	57	sw.	8.0	47	nw.
1890	63.0	94	26	3.04	9	0	0	9	12	10	...	nw.	8.8	46	nw.	1906	64.2	98	29	4.13	3.03	11	0	12	9	9	58	sw.	8.2	55	nw.
1891	64.1	93	27	3.16	9	0	0	9	11	10	...	w.	8.9	46	n.	1907	62.8	101	30	3.60	5.51	10	0	12	9	9	57	sw.	8.2	53	ne.
1892	64.1	98	30	3.92	2.86	13	0	8	9	13	...	sw.	8.7	46	n.	1908	65.7	96	24	1.75	2.14	5	0	20	7	8	78	sw.	8.4	44	w.
1893	65.2	93	31	2.72	3.34	10	0	8	10	12	46	sw.	8.3	46	nw.	1909	61.9	100	20	2.58	2.49	8	0	15	10	9	63	sw.	8.4	48	ne.
1894	66.1	98	32	2.52	2.30	9	0	8	12	10	56	sw.	9.7	37	n.	1910	61.9	100	20	2.58	2.49	8	0	15	10	9	63	sw.	8.4	48	ne.
1895	66.1	98	33	2.81	2.93	9	0	11	8	11	58	s.	8.1	38	n.	1911	63.1	92	32	2.94	2.44	10	0	12	8	10	55	nw.	8.9	46	w.
1896	64.3	96	32	2.73	2.51	9	0	10	11	9	57	sw.	9.9	64	e.	1912	63.0	97	27	0.93	1.42	6	0	18	8	4	73	nw.	10.6	46	n.
1897	60.7	92	30	1.62	1.42	10	0	10	9	11	48	nw.	10.4	38	ne.	1913	63.5	95	27	1.28	1.89	5	0	18	8	4	73	sw.	10.1	46	nw.
1898	64.5	93	31	2.69	3.27	10	0	11	10	9	51	w.	9.5	50	ne.	1914	62.7	97	24	2.32	2.24	8	0	14	9	7	60	nw.	9.8	52	nw.
1899	66.1	99	30	2.88	3.50	8	0	13	12	5	62	nw.	9.5	47	sw.	1915	62.5	94	28	2.08	4.19	9	0	12	11	7	56	s.	8.8	49	ne.
1900	65.7	105	32	2.71	2.72	8	0	15	9	6	68	sw.	9.6	54	w.	1916	60.6	89	26	5.02	2.81	16	0	9	9	12	47	nw.	9.2	57	w.
1901	64.9	101	30	1.96	3.30	7	0	16	8	6	65	sw.	8.7	48	e.	1917	63.2	92	31	6.14	4.15	15	0	10	8	12	47	sw.	9.0	52	s.
1902	61.3	94	20	4.30	1.00	14	0	12	9	9	55	sw.	9.3	55	n.	1918	60.7	95	26	3.72	4.00	8	0	13	8	9	60	sw.	10.0	61	se.
1903	59.5	89	21	6.70	5.15	13	0	8	6	16	46	se.	8.3	72	e.																



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U. S. DEPARTMENT OF AGRICULTURE

WEATHER BUREAU

CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

NEW ENGLAND SECTION

JULY, 1918

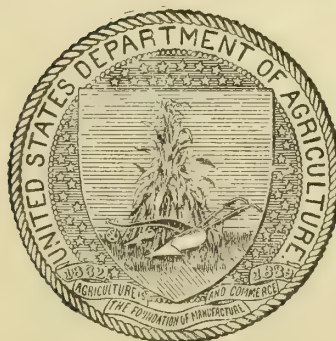
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BY

JOHN W. SMITH

METEOROLOGIST

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BOSTON, MASS.  
WEATHER BUREAU OFFICE

AUGUST 23, 1918



Departure of the Mean Temperature from the Normal, July, 1918.



Shaded portions show excess (+).  
 Unshaded portions show deficiency (-).  
 Lines show amount of excess or deficiency.

Scale: 1 inch = 100 miles  
 1:1,000,000



## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

VOL. XXX.

BOSTON, MASS., JULY, 1918.

No. 7.

## GENERAL SUMMARY.

The temperature during the first half of the month was below the normal; the last half of the month, however, was warmer than usual, with a considerable number of days with maxima above 90°. The rainfall for the section was below the normal in all of the States except Maine, where there was an excess of 1.77 inches. Showers were of frequent occurrence in the northern portion of the section during the greater part of the month, some stations in Maine recording precipitation on more than 20 days. They were also of frequent occurrence in the southern portion during the first and second decades, but afterward fair weather prevailed in this portion of the district until the 30-31st, when there was a general and heavy rainfall.

Hail attended thunderstorms in some localities on the 4th and the 11th, but caused no damage so far as reported. On the 7th a hailstorm of considerable severity occurred in the vicinity of East Raynham, Lakeville and East Taunton, Mass., from about 4.15 p. m. to 4.45 p. m., which was most severe in the vicinity of Middleboro Avenue, Lakeville, cutting off and splitting grapes, tomatoes and set fruits. In some places the hail accumulated to 4 inches in depth. On the 12th hail did considerable damage to gardens in the vicinity of Lawrence, Mass.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 13 stations reporting, was 29.99 inches, which was 0.03 inch above the mean for July, 1917, and 0.02 inch above the normal for the month. The highest monthly mean was 29.99 inches, at Hartford and New Haven, Conn.; the lowest, 29.96 inches, at Burlington, Vt. The highest recorded was 30.32 inches, at Portland, Me. on the 25th; the lowest, 29.64 inches, at Burlington, Vt. on the 9th. The monthly range for the section was 0.66 inch.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 74 stations, was 68.8°, which was 1.6° below the mean for July, 1917. During the past 30 years the average July temperature has been higher in 18 and lower in 12 years than that of the present month. The highest average July temperature during this time was 72.6°, in 1911; the lowest, 66.0°, in 1891. The average temperature for the several States of the section was as follows: Maine, 67.2°; New Hampshire, 68.4°; Vermont, 68.1°; Massachusetts, 69.6°; Rhode Island, 69.7°; Connecticut, 70.3°. The average temperature for the section was 0.3° below the normal for the month. The departures from the normal for the several States were as follows: Maine, -0.2°; New Hampshire, +0.1°; Vermont, +0.2°; Massachusetts, -0.8°; Rhode Island, -0.4°; Connecticut, -0.1°. The highest monthly mean was 72.5°, at Bridgeport, Conn.; the lowest, 57.6°, at Eastport, Me. The highest recorded was 100°, at Amherst, Mass. on the 22d; the lowest, 35°, at Somerset, Vt. on the 2d. The greatest monthly range was 58°, at Voluntown, Conn.; the least, 30°, at Provincetown, Mass. The greatest daily range was 50°, at Patten, Me. on the 23d, and Cavendish, Vt. on the 21st and 22d.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 13 stations reporting, was 81 per cent, which was 1 per cent below the average for July, 1917, and 4 per cent above the normal for the month.

The highest monthly average was 94 per cent, at Nantucket, Mass.; the lowest, 72 per cent, at New Haven, Conn.

## PRECIPITATION.

The average for the section, as determined from the records of 74 stations, was 3.46 inches, which was 0.95 inch above the average for July, 1917. During the past 30 years the average July precipitation has been greater in 17 and less in 13 years than that of the present month. The greatest average July precipitation during this time was 7.61 inches, in 1889; the least, 2.19 inches, in 1909. The average precipitation for the several States of the section was as follows: Maine, 5.29 inches; New Hampshire, 2.69; Vermont, 2.81; Massachusetts, 3.33; Rhode Island, 2.73; Connecticut, 3.34. The average for the section was 0.13 inch below the normal for the month. The departures from the normal for the several States were as follows: Maine, +1.77 inches; New Hampshire, -0.98; Vermont, -1.30; Massachusetts, -0.10; Rhode Island, -0.52; Connecticut, -0.50. The greatest monthly amount was 9.60 inches, at Patten, Me.; the least, 0.90 inch, at Vernon, Vt. The greatest amount in 24 hours was 2.95 inches, at Voluntown, Conn. on the 30-31st. The average number of days with .01 inch or more of precipitation was 11, 1 more than the average for July, 1917, and 2 more than the normal for the month.

## WIND.

The prevailing direction of the wind was from the southwest, which is the normal direction for the month. The greatest monthly wind movement at any station was 10,780 miles, at Blue Hill Observatory, Hyde Park, Mass.; the least, 2,160 miles, at Concord, N. H. The average hourly wind movement was 8.3 miles, which was 0.4 mile less than the average for July, 1917, and normal for the month. The highest recorded velocity was 48 miles per hour from the southwest, at Blue Hill Observatory, Hyde Park, Mass. on the 30th, and 48 miles per hour from the northwest, at Providence, R. I. on the 17th. This is less than the usual maximum velocity for the month.

## SUNSHINE AND CLOUDINESS.

The average number of clear days was 12; partly cloudy, 10; cloudy, 9, which is normal for the month. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 59, which was 3 per cent above the average for July, 1917, and 4 per cent below the normal for the month, as determined from the records of the past 26 years. The greatest percentage of possible sunshine at any station was 79, at New Haven, Conn.; the least, 39, at Eastport, Me. The greatest percentage of possible sunshine in any July during the past 26 years was 68, in 1894 and 1904; the least, 46, in 1897 and 1916.

## DATES OF MISCELLANEOUS PHENOMENA.

*Halos, Solar.*—Northfield and Woodstock, Vt., 31; Boston, Mass., 19, 31; Hartford, Conn., 4, 12, 19; New Haven, Conn., 12.

*Thunderstorms* (dates and number of observers reporting on each): Maine—7th, 2; 8th, 3; 9th, 1; 11th, 2; 12th, 4; 13th, 1; 14th, 3; 15th, 2; 16th, 1; 17th, 4; 19th, 2; 20th, 1; 22d, 1; 23d, 1; 24th, 1; 28th, 3; 29th, 2; 30th, 2. New Hampshire—4th, 2; 7th, 7; 8th, 1; 9th, 1; 11th, 2; 12th, 9; 13th, 6; 14th, 6; 15th, 4; 16th, 4; 17th, 6; 19th, 4; 20th, 6; 22d, 2; 23d, 2; 27th, 1; 28th, 5; 30th, 5. Vermont—1st, 1; 6th, 6; 7th, 1; 8th, 1; 9th, 1; 10th, 1; 11th, 3; 12th, 7; 13th, 6; 14th, 3; 15th, 1; 16th, 4; 17th, 1; 20th, 3; 22d, 2; 23d, 1; 24th, 1; 25th, 1; 27th, 2; 28th, 3; 29th, 2; 30th, 6. Massachusetts—3d, 1; 4th, 12; 5th, 1; 6th, 1; 9th, 2; 10th, 18; 11th, 12; 12th, 24; 13th, 4; 14th, 15; 15th, 4; 16th, 1; 17th, 21; 18th, 1; 19th, 6; 20th, 12; 22d, 1; 30th, 24. Rhode Island—4th, 6; 5th, 1; 7th, 3; 12th, 3; 13th, 3; 14th, 2; 17th, 1; 19th, 3; 20th, 2; 30th, 6. Connecticut—4th, 8; 6th, 1; 7th, 1; 10th, 8; 11th, 3; 12th, 6; 13th, 7; 14th, 6; 15th, 2; 16th, 1; 17th, 9; 18th, 1; 19th, 2; 24th, 1; 29th, 2; 30th, 11; 31st, 1.



## Climatological Data for July, 1918.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				No. of days.				Observer.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.		Cloudy.	Prevailing direction of wind.
Maine.																				
Bar Harbor	Hancock	20	32	64.9	-0.7	90	27	47	13	32	2.31	-0.62	0.42	0	12	19	3	9	e.	Mount Desert Nurseries. T. H. West.
Cornish	York	778	63																	U. S. Weather Bureau.
Eastport	Washington	53	46	57.6	-2.2	82	28	46	10	26	2.98	-0.44	1.29	0	13	3	10	18	s.	State Normal School.
Farmington	Franklin	450	21																	Samuel D. Soule.
Gardiner	Kennebec	163	26	70.4	-0.4	93	27	50	4	35	7.06	+3.82	2.40	0	16	13	3	15	sw.	U. S. Weather Bureau.
Greenville	Piscataquis	1,140	14	66.0		90	23	49	10 <sup>a</sup>	29	8.25	+4.01	2.05	0	22	11	5	15	sw.	Bangor & Aroostook R.R.
Houlton	Aroostook	362	16	65.8		92	28	40	2	33	2.86	+0.30	1.10	0	10	15	4	12	w.	Union Water Power Co.
Lewiston	Androscoggin	185	35	68.4	-1.1	93	27	54	4 <sup>a</sup>	29	6.86	+3.31	2.18	0	15	10	13	8	n.	Great Northern Paper Co.
Madison	Somerset	257	15	69.4		95	28	51	4	34	6.19	+2.12	1.43	0	15	11	10	10	se.	Great Northern Paper Co.
Millinocket	Penobscot	3-6	15	67.2		92	27	47	4	35	7.73		2.52	0	16	5	8	18	nw.	Great Northern Paper Co.
North Bridgton	Cumberland	450	25	68.6	-0.9	94	27	49	3	34	4.55	+0.48	1.77	0	21	7	11	13	se.	C. L. Chadbourne.
Orono	Penobscot	129	49	68.6	+1.3	92	24	51	9 <sup>a</sup>	31	6.89	+3.64	1.91	0	12	15	14	2	sw.	Maine State College.
Patten	do	550	16	67.4 <sup>d</sup>		96 <sup>d</sup>	23	45 <sup>d</sup>	1 <sup>a</sup>	50 <sup>d</sup>	9.60	+5.79	2.40	0	12	8 <sup>d</sup>	1 <sup>d</sup>	18 <sup>d</sup>	sw.	Bangor & Aroostook R.R.
Portland	Cumberland	99	47	66.7	-1.3	94	23	52	9	26	2.94	-0.31	0.80	0	16	9	9	13	s.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	9																	E. M. Libby.
Rumford	Oxford	505	25	69.5	+1.2	93	27	50	4	32	3.76	-0.05	1.34	0	9	13	9	9	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	14	66.6		90	27	46	31	35	3.73	+0.18	0.90	0	12				sw.	Rev. J. M. Thomas.
Winslow	Kennebec	90	23	70.5	+2.0	94	21	49	4	41	6.06	+2.51	1.67	0	11	12	9	10	sw.	Hollingsworth & Whitney
New Hampshire.																				
Akilester Center	Cheshire	1,120	14	72.2	+0.5	90	27 <sup>a</sup>	46	3	29	1.56	-2.72	0.37	0	14	16	7	8	nw.	Frank Dewing.
Berlin	Coos	1,090	21	67.4		94	22	40	2	36	2.24	-1.77	1.35	0	11	8	10	13	sw.	Brown Company.
Bethlehem	Grafton	1,470	26	67.0	-0.1	91	22	41	3	34	1.72	-2.02	0.49	0	11	14	6	11	sw.	Benjamin Tucker.
Concord	Merrimack	350	57	69.6	+0.5	95	22	48	3	36	1.74	-2.05	0.51	0	15	15	11	5	s.	U. S. Weather Bureau.
Durham	Stafford	88	23	70.0	+0.1	94	28 <sup>a</sup>	47	9	38	5.24	+2.22	0.94	0	12	15	4	12	se.	N. H. Agr. College.
Franklin	Merrimack	440	19	69.3	-0.6	95	22 <sup>a</sup>	40	3	39	2.95	-0.34	0.76	0	13	13	5	13	sw.	Gilbert Hodges.
Glencoff	Grafton	1,650	5	65.6		91	22	43	3	32	2.06		0.46	0	15	12	10	9	nw.	State Sanatorium.
Grafton	do	863	32																	P. R. Kimball.
Hanover	do	603	84	68.9	-0.3	95	22	43	3	36	1.59	-1.89	0.47	0	12	1	15	15	s.	Dartmouth College.
Keenes	Cheshire	506	33	69.2	+0.9	94	27 <sup>a</sup>	41	3	37	2.53	-0.71	1.54	0	10	12	12	7	sw.	Samuel Wadsworth.
Newton	Rockingham	126	30	67.6	-1.6	95	23	44	4	37	4.00	+0.66	1.06	0	15	9	14	8	sw.	W. C. Gale.
Pittsburg	Coos	1575		65.0		88	23	44	3	27	4.24		1.38	0	9	16	5	10	w.	Conn. Valley Lumber Co.
Plymouth	Grafton	500	30	69.2	+1.6	92	21	46	3	39	2.44	-1.20	0.64	0	16	15	5	11	w.	Mrs. Hattie G. Trow.
Vermont.																				
Bloomfield	Essex		11	68.0		95	22	40	3 <sup>a</sup>	44	2.89	-1.33	0.76	0	13	14	9	8	s.	Lyman Falls Power Co.
Burlington	Chittenden	404	11	68.9	+0.7	90	22	47	3	31	2.95	-0.83	1.07	0	13	11	10	10	s.	U. S. Weather Bureau.
Cavendish	Windsor	910	15	67.6 <sup>a</sup>		96 <sup>a</sup>	22	39 <sup>a</sup>	3	50 <sup>a</sup>	3.84	-0.17	0.98	0	11	13	3	15	sw.	Colonial Power Co.
Chelsea	Orange	840	23	67.0	-0.2	94	22	37	3	41	2.25	-1.13	1.25	0	7	14	4	13	n.	W. F. Dewey.
Cornwall	Addison	517	25	70.7	-0.2	94	22	45	3	34	2.85	-0.84	0.61	0	13	15	9	7	s.	C. H. Lane.
Enosburg Falls	Franklin	601	27	71.0	+3.4	94	22	44	31	40	4.74	+0.01	1.56	0	11	13	10	3	w.	J. W. Pomeroy.
Hyde Park	Lamoille	576	6	68.3		95	22	41	3	41	4.79		1.25	0	9	15	8	8	nw.	A. V. Wiswell.
Northfield	Washington	876	32	66.1	-0.5	93	22	38	3	38	1.77	-1.93	0.46	0	10	3	15	13	s.	U. S. Weather Bureau.
Rutland	Rutland	562	2	68.2		94	22	41	3	33	2.93		1.01	0	16	15	7	9	se.	George H. Ross.
Somerset	Windham	2,096	7	61.8		88	22	35	2	34	2.30		0.56	0	12	14	15	2	nw.	Power Construction Co.
St. Johnsbury	Caledonia	711	25	71.2	+3.1	97	22 <sup>a</sup>	43	3	37	1.82	-2.27	0.33	0	12	14	7	10	se.	Fairbanks Museum.
Vernon	Windham	310	3	69.8	-1.5	98	28	45	3	35	0.90	-3.60	0.25	0	10	7	16	8	sw.	Conn. River Power Co.
Wells	Rutland	750	27	67.4	-1.6	88	22	45	3	33	3.91	+0.01	1.21	0	14	11	12	8	s.	E. R. Pember.
Woodstock	Windsor	700	26	67.3	-1.0	93	22	38	3	39	1.36	-2.54	0.46	0	6	9	10	12	sw.	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	29	71.1	+0.6	100	22	45	3	39	1.84	-2.36	1.45	0	6	12	14	5	sw.	Mass. Agr. College.
Blue Hill	Norfolk	640	34	68.4	-0.8	93	23	49	9	22	6.10	+2.08	1.22	0	14	10	11	10	s.	Blue Hill Observatory.
Boston	Suffolk	124	43	71.0	-0.3	98	23	54	9	24	2.64	-0.72	1.03	0	13	9	11	11	sw.	U. S. Weather Bureau.
Chestnut Hill	do	124	38	68.0	-3.6	96	23 <sup>a</sup>	44	9	36	3.93	+0.42	1.22	0	15	18	0	13	sw.	Met. Water Board.
Clinton	Worcester	370	22	69.4		92	23	49	9	27	3.24	+0.18	1.26	0	14				sw.	Do.
Concord	Middlesex	139	28	68.8	-0.5	94	22 <sup>a</sup>	47	9	35	3.73	+0.49	1.19	0	18	7	14	10	sw.	Fred A. Tower.
Fall River	Bristol	200	52	70.5	-0.2	93	23	53	9	23	2.51	-0.53	1.57	0	9	8	22	1	sw.	C. V. S. Remington.
Fitchburg	Worcester	550	35	70.0	-0.5	95	22	49	9	31	3.64	-0.11	0.94	0	9	11	11	9	w.	Dr. A. P. Mason.
Framingham	Middlesex	160	33	71.0	-0.3	96	22 <sup>a</sup>	50	9	33	4.06	+0.64	1.35	0	12				sw.	Met. Water Board.
Lawrence	Essex	51	34	70.7	-1.9	97	23	49	9	30	7.63	+3.99	2.30	0	15	5	23	3	sw.	Essex Company.
Lowell	Middlesex	100	33	70.4	-1.1	94	23 <sup>a</sup>	49	9	29	2.88	-0.41	0.92	0	13				sw.	Props. Locks & Canals.
Nantucket	Nantucket	47	32	67.0	-0.5	88	21	51	6	22	1.47	-1.21	0.63	0	11	14	9	8	sw.	U. S. Weather Bureau.
New Bedford	Bristol	88	106																	City Engineer.
Plymouth	Plymouth	50	33	66.4		90	24	50	6	27	3.66	+0.56	1.56	0	7				e.	Miss L. B. Knapp.
Provincetown	Barnstable	40	31	69.0	-0.7	85	20 <sup>a</sup>	55	4 <sup>a</sup>	21	1.93	-0.50	1.75	0	4	21	3	7	sw.	Gideon Bowley.
Rockport	Essex	25	16	66.8		89	28 <sup>a</sup>	53	1	23	1.92		0.80	0	10	7	3	11	sw.	U. S. C. G. Station.
Rutland	Worcester	1,160	16	68.7		94	22	40	27	49	2.12		1.11	0	11	16	9	6	sw.	State Sanatorium.
Springfield	Hampden	199	8	72.2	-1.0	99	22	48	3	35	1.76	-2.92	1.14	0	4	5	17	9	ne.	U. S. Army.
Turners Falls	Franklin	200	32	72.0	+2.1	104	28	46	3	37	1.51	-2.12	0.44	0	7	5	13	13	sw.	Turners Falls Co.
Westboro	Worcester	298	44	70.6	-1.5	94	23	50	3	21	4.98	+1.65	1.74	0	11	7	19 <sup>a</sup>	5	w.	Miss E. W. Newcomb.
Williamstown	Berkshire	711	37	68.6	0.0	92	28	42	3	31	1.78	-2.51	0.50	0	10	13	11	7	nw.	Williams College.
Worcester	Worcester	518	26	71.0	-0.4	94	22	52	9	23	3.44	-0.30	0.92	0	13	8	13	10	sw.	G. W.



Daily Precipitation for July, 1918.

Stations.	Watersheds.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Maine.																																	
Ashland	St. John	.18					*	* 2.77	.17	.08	.02	.04			.79		.07	.27	.06	.02			.16	.34	.04			.05	.02	.15			
Bar Harbor	Coast	.14		.20	.42	.28	.24	.16	T.						.27	.25			.20				.02	.03							.10		
Cornish	Saco																																
Eastport**	Coast	.10	.18	.10	.51	.04	T.	.03	.49	T.	T.			T.	.34	.01		.01	.06	.15													
Eustis	Kennebec	T.	.02					.43	.19	.38	.29	.10		.02	.34	.64		T.	.02	T.	.09		T.		.06				T.				
Farmington	do																																
Gardiner	do	.05	.06			.03	.01	.75	1.08	.03	.14	.03	.10		.03	.88		2.40	.54														
Greenville**	Penobscot	.02	.60			T.	T.	1.22	.55	.70	.41	.01	.09		.60	2.05	.53	.12	.01	.07	.19	.18		.17	.25	.55			.26	.03	.14		
Houlton	St. John			.10		.70	1.19		.40						.03	.32														.26	.03	.14	
Lewiston	Androscoggin	.06	.26		T.	.06	T.	.89	.67	.47	.05	T.	.05		.87	.36		1.96	.22					.05	.02								
Machon	Kennebec	.10				.07	.26	.42	.40	.15	.76	1.02	*	1.01				*	.47						.16			.46					
Millinocket	Penobscot	.17	.01			.01	.53	2.52	.90	.22	.01	.06			.15			.69	.07				1.43	.03	.04								
North Bridgton	Saco	.10	.23	.02		.01	.04	.07	.20	.10	.01	.30	.02	.03	.12	.01	.70	.18	T.	T.		.03	.11	.17		.24	.01			.16	.84		
Orono	Penobscot				.26		1.37	.59	.78		.10	.23	.41		1.91											.24	.01			.17	.28		
Patten	do		T.				*	2.40	1.00	.20	T.	.40	.80		2.00				.77		.14				.11						.22		
Portland**	Coast	.05	.35		.32	.05	.07	.36	.26	.01					.17	.12			.64		.40	.60		.60						.20	.06		
Presque Isle	St. John																																
Rumford	Androscoggin	.02	T.		T.	T.	T.	.50	T.	.29	.06	T.	1.34	T.	T.	T.		1.05					T.							.01	.80		
Van Buren	St. John		.05				.31	.35	.13	.05	.02			T.	1.25	T.		.58	.18														
Winslow	Kennebec		.07			T.	T.				1.29	.04	.93	.36		1.35		*	4.67				.03	.02						.25			
New Hampshire.																																	
Aldstead Center	Connecticut	.13	.20		.01		T.	.17		.07	.06		.25		.11	.03		.07	.03	.01	.05				T.				.02	T.	.37		
Berlin	Androscoggin	.02					.11	.02	.23	.09	.06		1.35	.02				.25						T.	T.					.02	T.	.97	
Bethlehem	Connecticut	T.				.06	.34	.15	.01	.11			.09	.34				T.	.03		.07				.44				.08		T.		
Brookline	Merrimack																																
Concord**	do	.04			T.	T.		.11		.01	.01	.08	.26	.14	.25	.01		.61							T.					.01	.31		
Durham	do		.90			.12	.30	.80	.90				.20		.94			.54			.01				.02				.31	.21			
Franklin	do	.03				.10	.76		.06	.01			.35	.56	.18	.04		.38						.01				.05	.42				
Glenciff	do	.10				.25	.08	.12	.25	.02	.03	.09	.22	.23	.01	T.		.10					.07	T.				.46	.03				
Grafton	do																																
Hanover	Connecticut	.38	.01		T.			T.	.03	.47	T.	T.	T.	.15	.01	T.		.23	.02		.11	.03			T.				.13	T.	.02		
Keene	do	.10	.20			.07	.03		.03	.09	T.	.03	T.	1.54	T.		.22		T.														
Newton	Merrimack	.13			T.	.09	.11	.08	T.	.54	.02	.10	.50	.40	.16	T.		1.06	T.	.01	.03				T.	T.			.22				
Pittsburg (a)	Connecticut						.60	.30	.20	.39	.12	T.		.43	.67										T.	T.			.69	.68			
Pittsburg (b)	do						.54	.60	.60	.27	.15	.06	.04	.56	.48													.05		.25			
Plymouth	Merrimack	.22	.06			.04	.26		.04	.04		.25	.04	.60				.09	.12		.09		.03	.05					.47	.02	1.34		
Vermont.																																	
Bloomfield	Connecticut		.03				.30	.11	.04	.13	.08	.04	.34	.96			.11	.15											.25		.55		
Burlington**	Champlain	.19				1.04	.02	.03	T.		.01	T.	.07	.07	T.	.01	.13	T.											T.	.11	.52		
Cavendish	Connecticut	.41	.20				.05		.08		.13	.35					.61	.98															
Chelsea	do	.52				T.	T.		.06	.18		1.25		.06			.06								.02					.57			
Cornwall	Champlain	.35	T.			.61	.26	.47	.15	T.	.05	.02	.20	.10		T.	.30								.08				.12				
Enosburg Falls	do	1.08				.29	.24	.30	T.		.01	.02	.72	.11		.07	.34				.03				T.	T.			.25				
Hyde Park	do	.17					.35	.01			.17	.66	.73	1.25			.36								T.	T.			1.56				
Northfield**	Champlain	.10				.08		T.	.09	.20		.33	.14	.06		T.	.27							T.	T.				.04				
Rutland	do	.02	.12				1.01	.09	.01	.38	.68	.01	.68	.12	.29		.32	.15						T.	T.					.16			
Somerset	Connecticut	.41			.06		.12		.04	.20	.51	T.	.01	.02	.54	.04	.10									.01			.22	.10			
St. Johnsbury	do	.04	.22			.01	.18	.11	T.	.27	T.	.03	T.	.12	T.		.11	.21										.19					
Vernon	do	.23				.04		.15	.04	.01	.01			.03			.25		.06										.33				
Weils	Champlain	.18				.08	.11	.04	.26	.62	.11	1.21	.24	.04		.15	.25												.08				
Woodstock	Connecticut	.44					.05		T.	.27				T.			.46				.50			T.					.12				
Massachusetts.																																	
Amherst	Connecticut	.11			T.				.02	.01			.04				.21																
Ashland	Merrimack	.02			.07	*	.09	.94		.01	.21	.67	.04	.01			.81		.02	.02													
Bakers Bridget	do			.10	.07		.64			.05			.25	.05	.15		T.	1.09		.03													
Bluff	do	T.	.05		T.	.11	.13	.02	.12	.17			.61	.31	.06	T.	.62		.04	.03					T.	T.							
Boston**	Coast	.02	.20			.08	.35	.84	T.				.89	.03	.54	T.	.14	.20	.92														
Brockton	do	.03	.19			.08	.04	.08			.15	.05	.39	T.	.29		.28	.08	T.	T.					T.	T.	.02						
Chestnut Hill	Coast																																
Clinston	do	.25			.03	.15	.04	.08		.05	.10	.25	.63		.78	.05	.24		.06	1.05													
Concord	Merrimack	.05			.08	*	.10	.01		.15	T.	.05	.03	.06			.33		.07	.15													
Fall River	do	T.	.08		.26	.01	.04	.26	T.	.05	.07	.04	.26	.05	.12		.11	.13	.02	.03					T.		.01						
Fitchburg	Coast	.15				.05	.55						.08				.06	.08	.02														
Framingham	Merrimack	T.	.15		T.	.01	T.	.92		.16		.05					.93			.33													
Haverhill	do	.04			.03	*	.13	1.06		.38	.24						.75		.06										.02				
Hingham	do	.15			.01	.13	.18	.23	T.	T.	.18	10	2.70		.60		1.25	1.06	.03										.01				
Hyannis	Coast	.25			.05	.30	.23	T.			.38		.14				.50			.03													
Jefferson	do	.06				.08	.12	.08									T.								T.	T.							
Lake Cochituate	Merrimack	.23			.12		T.	.06		.09	.10	T.	.19				.72			.02													
Lawrence	do				.12	*	.13	1.12		.02	.31	.14		.03			.47																
Leominster	do	.09			T.	.07	.05	.77	.24	.06	.07		2.30	.25	1.56	T.	.62	T.	T.	.02													
Lowell	do	.21	T.		T.	.04	.85	.05	T.	.02	T.	.03					.65		T.	.12													

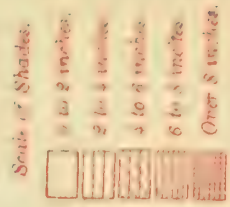
Continued on page 56.



## Daily Temperatures for July, 1918.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean	
Maine.																																	
Bar Harbor.....	Maximum	67	61	76	71	65	64	60	66	64	72	76	71	67	67	77	86	77	73	78	86	80	78	87	89	74	74	90	89	85	76	77	74.9
	Minimum	52	51	54	50	58	53	50	54	48	58	51	53	47	54	53	56	56	62	53	55	56	55	57	55	57	64	58	66	57	56	57	64.9
Eastport.....	Maximum	59	63	66	63	58	55	56	58	54	62	63	61	59	64	70	76	65	68	70	72	70	57	71	65	71	69	77	82	59	69	67	65.1
	Minimum	47	48	50	51	48	47	48	49	47	46	43	47	47	45	49	51	50	56	50	53	51	49	49	54	51	55	51	56	50	53	55	50.2
Farmington.....	Maximum	71	73	79	83	81	67	63	67	70	73	70	82	76	80	86	83	80	87	86	89	86	91	89	79	81	93	88	89	84	72	80.1	
	Minimum	54	51	57	59	60	59	57	56	51	55	55	56	55	58	60	56	59	61	57	63	73	75	74	68	61	71	69	68	65	66	55	60.7
Gardiner.....	Maximum	71	64	76	79	76	65	61	59	63	71	75	71	71	72	82	72	78	81	79	80	84	84	85	88	91	85	78	86	92	87	79	75.0
	Minimum	56	55	59	59	59	54	53	51	53	49	56	53	56	58	58	53	58	58	52	53	57	61	67	64	60	61	67	60	66	67	49	57.1
Greenville.....	Maximum	71	65	73	81	69	67	61	60	62	65	74	81	81	79	73	70	84	79	80	84	84	85	88	91	85	78	86	89	85	82	76	77.0
	Minimum	55	53	54	47	60	54	56	56	59	51	49	53	56	58	59	49	58	60	52	53	54	62	63	66	55	69	66	68	61	66	51	57.4
Millinocket.....	Maximum	72	69	74	78	78	65	68	68	68	74	81	81	74	72	83	84	81	87	87	85	89	87	92	78	80	90	91	88	82	79	80	79.0
	Minimum	56	54	55	49	60	51	53	56	51	51	55	55	53	58	60	56	57	61	56	58	58	59	63	67	61	62	71	15	68	54	58.1	
Orono.....	Maximum	72	69	74	78	78	65	68	68	68	74	81	81	74	72	83	84	81	87	87	85	89	87	92	78	80	90	91	88	82	79	80	79.0
	Minimum	56	54	55	49	60	51	53	56	51	51	55	55	53	58	60	56	57	61	56	58	58	59	63	67	61	62	71	15	68	54	58.1	
Portland.....	Maximum	55	62	73	81	64	57	58	69	66	74	73	73	65	72	76	80	76	74	78	88	82	80	94	78	66	75	83	84	79	67	74.1	
	Minimum	35	54	55	57	53	33	34	54	52	53	57	59	55	57	60	61	61	63	63	60	65	65	69	60	60	61	67	63	65	65	57	59.3
Presque Isle.....	Maximum	71	73	79	83	81	67	63	67	70	73	70	82	76	80	86	83	80	87	86	89	86	91	89	79	81	93	88	89	84	72	80.1	
	Minimum	56	51	57	59	60	59	57	56	51	55	55	56	55	58	60	56	59	61	57	63	73	75	74	68	61	71	69	68	65	66	55	60.7
Rumford.....	Maximum	71	64	76	79	76	65	61	60	62	65	74	81	81	79	73	70	84	79	80	84	84	85	88	91	85	78	86	89	85	82	76	77.0
	Minimum	60	58	52	50	60	61	58	55	57	54	56	58	58	59	62	56	63	63	56	56	58	64	77	68	66	67	72	69	65	56	60.5	
Van Buren.....	Maximum	83	71	80	80	77	76	66	54	65	63	73	79	83	77	68	83	79	76	83	81	77	88	84	80	83	87	91	81	80	77	72	77.5
	Minimum	56	59	59	49	56	53	56	50	54	52	50	50	52	58	56	68	60	56	52	52	53	58	65	51	53	61	68	62	53	64	56	55.6
New Hampshire.																																	
Alstead Center.....	Maximum	80	65	75	78	78	74	75	65	60	65	75	72	68	72	77	84	74	80	80	81	87	89	89	83	80	88	90	90	88	78	85	81.5
	Minimum	58	58	46	53	55	57	57	52	55	58	53	56	55	57	54	58	60	64	60	67	62	64	68	70	62	60	67	67	67	68	62	62.9
Bethlehem.....	Maximum	75	70	75	77	77	72	72	64	62	71	75	72	72	72	77	83	74	77	83	78	85	91	90	83	80	88	88	85	87	81	73	77.7
	Minimum	62	57	41	49	51	55	54	53	49	52	52	52	52	54	56	55	57	58	52	54	55	62	65	54	58	58	67	68	65	66	49	56.2
Concord.....	Maximum	67	75	78	81	75	71	74	70	69	73	78	80	73	74	80	89	81	89	81	87	87	92	95	78	77	89	94	94	91	82	76	80.9
	Minimum	55	54	48	52	56	57	57	51	51	55	54	55	54	57	55	53	61	62	57	57	59	63	65	64	63	62	65	70	66	64	58	58.2
Franklin.....	Maximum	71	76	79	83	80	74	75	72	70	75	82	81	75	77	80	80	83	88	87	91	95	95	93	78	80	90	94	94	94	94	94	94
	Minimum	56	58	46	49	46	49	60	57	51	46	55	51	52	53	55	54	53	60	60	53	54	54	60	64	68	61	62	61	67	69	55	56.3
Hanover.....	Maximum	75	69	77	80	84	70	77	68	63	70	75	77	76	77	83	88	88	82	85	84	90	95	92	83	81	92	92	91	91	82	72	80.3
	Minimum	50	57	43	48	51	62	57	51	49	55	55	57	56	57	55	57	54	54	57	59	53	57	59	66	63	61	66	69	53	57.5		
Keene.....	Maximum	80	71	78	81	83	75	77	71	70	71	79	76	73	72	80	88	80	82	84	85	91	93	93	91	82	90	94	94	91	83	75	81.5
	Minimum	62	56	41	48	55	61	56	47	49	55	49	51	52	56	54	51	58	61	55	55	55	57	63	66	61	62	66	66	65	69	55	56.8
Plymouth.....	Maximum	74	73	81	86	78	70	73	69	67	72	76	75	74	70	85	83	74	83	83	85	92	91	90	80	77	91	90	88	87	79	75	79.7
	Minimum	60	58	46	47	52	63	53	52	56	53	55	55	58	60	56	60	63	53	59	55	60	68	67	63	65	64	65	70	69	55	58.6	
Vermont.																																	
Burlington.....	Maximum	73	63	76	76	84	78	70	65	63	72	71	76	75	72	82	86	72	81	83	89	90	86	86	85	89	90	85	90	85	75	69	78.4
	Minimum	60	50	47	54	53	56	55	52	55	58	57	53	56	57	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62
Enosburg Falls.....	Maximum	81	69	87	77	86	81	72	64	67	75	75	78	74	70	84	87	74	81	85	82	88	94	91	89	87	92	91	86	91	86	71	81.3
	Minimum	59	55	58	47	46	56	53	54	47	50	54	54	54	56	70	62	59	59	69	78	70	77	66	60	74	74	80	65	44	60.7		
Northfield.....	Maximum	64	65	75	77	84	71	71	65	62	72	73	74	75	71	80	86	69	79	83	84	87	93	90	83	80	90	90	86	89	76	72	77.9
	Minimum	55	44	38	44	46	57	55	50	47	54	54	56	51	55	54	53	55	56	51	52	54	60	63	64	60	58	64	66	65	54	54.2	
St. Johnsbury.....	Maximum	84	72	89	82	86	87	77	75	66	73	77	81	81	73	86	90	89	83	89	88	91	97	97	92	84	93	95	94	94	93	76	84.7
	Minimum																																







## Daily Precipitation for July, 1918—Continued from page 53.

Stations.	Watersheds.	Day of month.																															Total.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
<i>Rhode Island.</i>																																			
Block Island ***	Coast	.03			.30	.03					T.		.06					.13													.20	1.00	1.75		
Bristol	do	*	.17		T.			.70					.06		.24	.19	.04		.17	T.											*	1.25	2.35		
Greene	do				.30														.55												.74	1.55	3.74		
Hope Valley	do				.26			.64																								.19	1.24	2.53	
Kingston	do	.09			.48	T.		.10							.28				.15		T.											.23	1.40	2.57	
Narrag'sett Pier***	do		.17		.40	.03	T.	.05						.11	.03			T.	.15		T.											*	1.97	3.52	
Pawtucket	do		.14		T.		.01	.05					1.00	.08				*	.18	.09						T.						1.44	.78	4.44	
Providence**	do	.03	.10		T.	T.	T.	T.					1.72	.08	T.				.27	.02	T.	T.					T.								
Wallum Lake	do																																		
<i>Connecticut.</i>																																			
Bridgeport	Coast	.21			.15						.03			.02	.16			.11														1.75	1.22	3.65	
Canton	Connecticut	.23								.20				.09	.42			.34								T.						1.00	.74	3.02	
Colchester	Coast	T.			T.					.12		T.		.06	.09			.41	.16												*	2.11	2.95		
Crom Hill	Housatonic	.55			.15		T.	.32		.01	.04	T.	T.	.10	.20			.17	T.	T.											1.13	1.10	3.77		
Danielson	Coast				T.								.25	.15				.35														2.50	3.25		
East Hartland	do	.30					.03				T.		.18	.10				.66													1.17	2.44			
Falls Village	Housatonic	.59			.08		1.43			.02	.04	T.		.12	.09			.25	.02												1.43	1.61	.06		
Hartford **	Connecticut	.15			T.					T.	.28		.01	.56	.10	.09		.10														.08	2.51	2.68	
Lake Konomocoff	Coast				.09								.08	T.	.14	.11	.27		.82								T.	T.	T.			1.40	1.38	4.31	
New Haven***	do	.10		T.	.01		T.						.08	T.	.14	.11	.27		.82													.60	2.50	4.15	
New London	do	T.	.05		.56			T.						.04	.13	.03		.26														.74	.40	1.79	
N. Grosvenor Dale	do		.04		.04		.06						.14	.03	.13	.21		.05														*	2.82	4.19	
Norwalk	do	.34			.34		.13						.10	.20	.05	T.	.25	T.		.70	.10											.70	.45	2.65	
Southington	do	.10	T.																																
Storrs	Coast												.23		.35		1.00		.34		.02											1.98	*	2.95	3.99
Torrington	Housatonic																	*		.26															
Volltown	Coast				.25										.18	.35																			
Waterbury	Housatonic																																		

## Special River Rainfall Stations

<i>Maine.</i>																																	
Brownville	Saco																																
Mattawamkeag	Penobscot																																
<i>New Hampshire.</i>																																	
Franklin Junction	Merrimac																																
Lancaster	Connecticut																																
Manchester	Merrimac																																
Sewall's Falls #	do																																
West Stewartstown	Connecticut																																
<i>Vermont.</i>																																	
Bellow's Falls	Connecticut																																
Wells River	do		.38				.46			.42			.72	.18	.20	.16		.36								.42							3.30
White River Junction	do		.38				.02	.01	T.	.09	.03		.03	T.	.13	T.	.41	.14							.01					.03	.04		1.33
<i>Massachusetts.</i>																																	
Holyoke	Connecticut																																

## Daily Evaporation (inches) and Wind Movement (miles).

Gardiner, Me. . .	Evaporation . . . .	.08	.00	.20	.21	.10	.09	.00	.00	.19	.17	.16	.21	.11	.10	.14	.30	.10	.12	.25	.25	.19	.21	.15	.11	.11	.14	.20	.15	.19	.17	.18	4.58
	Wind movement . . .	34	21	50	70	90	51	20	50	50	40	30	30	20	50	70	39	60	40	40	40	30	40	30	39	41	60	50	30	39	110	60	1,419
Dorchester Center, Mass. . .	Evaporation . . . .																																
	Wind movement . . .																																

† Observations taken at 6 p. m.

‡ Observations taken at 7 a. m.

See temperature and precipitation data in Climatological Tables.

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

T. Precipitation is less than 0.01 inch rain or melted snow. # Precipitation indicated in that of following day. †† Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.; Sewall's Falls, Concord, N. H.

## Comparative Data for New England for July.

Year	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.								
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888	66.7	94	32	2.37		10	0	12	10	9		SW.	10.3	48	SW.	1904	68.6	98	39	2.95	2.97	11	0	13	11	7	68	SW.	8.2	49	W.
1889	62.1	97	33	7.61		14	0	5	9	15		SW.	8.6	52	NE.	1905	69.9	98	38	3.63	4.47	11	0	13	11	7	63	SW.	8.0	53	NW.
1890	68.4	100	35	3.14		10	0	10	12	9		SW.	8.3	48	S.	1906	69.1	97	35	4.64	3.30	12	0	12	10	9	56	SW.	7.6	47	S.
1891	66.0	101	35	3.94		12	0	10	10	11		SW.	8.2	46	SW.	1907	69.0	106	38	3.02	3.00	10	0	13	11	7	64	SW.	8.0	50	W.
1892	70.0	102	24	2.91		11	0	11	14	16		SW.	8.5	49	SW.	1908	71.6	101	34	3.61	3.42	9	0	14	11	6	66	SW.	8.2	57	W.
1893	68.2	98	36	2.27		5	0	13	13	5		SW.	8.5	49	NW.	1909	67.2	100	30	2.19	3.09	8	0	16	10	5	66	SW.	9.6	47	N.
1894	71.0	105	38	3.06	2.31	10	0	13	12	6	68	W.	8.9	51	W.	1910	70.6	99	30	2.39	2.44	8	0	15	9	4	66	SW.	8.3	48	SW.
1895	67.0	98	34	3.86	4.13	12	0	10	13	8	60	SW.	9.5	51	NE.	1911	72.6	106	40	3.95	4.85	8	0	17	9	5	65	SW.	8.9	65	NE.
1896	70.0	96	39	3.66	4.24	13	0	10	11	10	52	SW.	9.5	50	W.	1912	69.6	101	31	3.17	3.27	7	0	14	10	7	67	SW.	9.4	54	SW.
1897	70.6	102	40	3.97	8.11	12	0	9	10	12	46	SW.	9.3	67	W.	1913	69.6	102	32	2.66	4.99	9	0	16	10	5	67	SW.	9.9	52	SW.
1898	70.0	103	39	3.85	6.22	8	0	13	10	0		SW.	7.9	60	SW.	1914	66.4	93	35	3.59	3.25	11	0	11	10	10	50	SW.	8.3	56	NW.
1899	69.1	101	33	4.67	3.50	11	0	15	11	7	61	SW.	10.0	49	NW.	1915	67.8	94	37	7.49	4.86	15	0	10	12	9	52	SW.	7.8	51	NE.
1900	70.5	100	39	3.93	2.64	9	0	14	11	6	65	SW.	9.0	68	SW.	1916	70.5	104	37	5.13	4.50	13	0	11	9	11	46	SW.	9.0	50	SW.
1901	71.4	104	36	4.22	3.59	11	0	12	10	9	65	SW.	7.5	54	SW.	1917	70.4	102	42	2.51	4.08	10	0	12	11	8	56	SW.	8.7	48	SW.
1902	69.3	96	39	4.67	3.34	12	0	10	9	12	57	SW.	7.2	53	SW.	1918	68.8	100	35	3.46	2.95	11	0	12	10	9	59	SW.	8.3	48	SW.
1903	68.0	100	34	3.67	2.66	12	0	12	11	8	53	SW.	8.0	48	E.																



U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

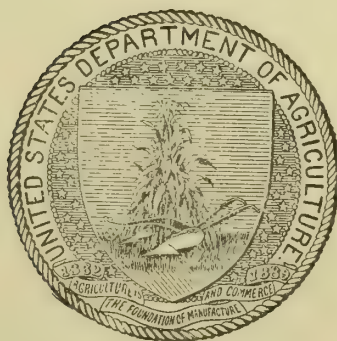
NEW ENGLAND SECTION

AUGUST, 1917

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BY  
JOHN W. SMITH  
METEOROLOGIST

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
SEPTEMBER 30, 1918



Departure of the Mean Temperature from the Normal, August, 1918.



Shaded portions show excess (+).  
 Unshaded portions show deficiency (-).  
 Lines show amount of excess or deficiency.



## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

VOL. XXX.

BOSTON, MASS., AUGUST, 1918.

No. 8.

## GENERAL SUMMARY.

The weather conditions of the month were, as a rule, near the normal for the season. The average temperature was somewhat above the normal, although lower than that of August for the past two years. There were no marked extremes in either the highest or the lowest temperatures, and about the usual number of days with maximum of 90° or above. The rainfall for the section was below the normal, and with the exception of 1916, the least for any August since 1909. The deficiency was due to the lack of rain in the southern States of the section, the amount in the northern States being practically normal. In Massachusetts, Rhode Island and Connecticut, however, there were many stations with a deficiency of more than two inches, and the average for each of these States was more than one inch below the normal. The greater part of the rainfall occurred from the 5th to the 14th, during which time showers occurred nearly every day at the majority of stations. From the 15th to the 28th there was no rain other than light local showers, which were mostly in Maine and Massachusetts. From the 29th to the 31st showers were general in light to copious amounts, which were of much benefit in relieving the drought which was becoming serious. There was local damage by frost on the 18th in some places in the interior of the northern States.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 13 stations reporting, was 30.04 inches, which was 0.02 inch above the mean for August, 1917, and 0.71 inch above the normal for the month. The highest monthly mean was 30.06 inches, at Portland, Me.; the lowest, 30.03 inches, at Eastport, Me., Amherst, Mass. and Hartford, Conn. The highest recorded was 30.56 inches, at Northfield, Vt. on the 19th; the lowest, 29.51 inches, at Hartford, Conn. on the 9th. The monthly range for the section was 1.05 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 75 stations, was 68.0°, which was 1.5° below the mean for August, 1917. During the past 30 years the average August temperature has been higher in 8 and lower in 22 years than that of the present month. The highest average August temperature during this time was 70.0°, in 1906; the lowest, 61.8°, in 1903. The average temperature for the several States of the section was as follows: Maine, 65.0°; New Hampshire, 66.5°; Vermont, 66.4°; Massachusetts, 69.8°; Rhode Island, 70.0°; Connecticut, 71.5°. The average temperature for the section was 1.2° above the normal for the month. The departures from the normal for the several States were as follows: Maine, +0.1°; New Hampshire, +0.9°; Vermont, +1.4°; Massachusetts, +1.3°; Rhode Island, +0.6°; Connecticut, +2.4°. The highest monthly mean was 74.1°, at Bridgeport, Conn.; the lowest, 58.8°, at Eastport, Me. The highest recorded was 102°, at Vernon, Vt. and Springfield, Mass. on the 7th; the lowest, 32°, at Chelsea, Vt. on the 18th and Van Buren, Me. on the 28th. The greatest monthly range was 65°, at Cavenish, Vt.; the least, 31°, at Eastport, Me. The greatest daily range was 52°, at Patten, Me. on the 22d.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 13 stations reporting,

was 80 per cent, which was 2 per cent below the average for August, 1917, and 1 per cent above the normal for the month. The highest monthly average was 88 per cent, at Block Island, R. I.; the least, 74 per cent, at Boston, Mass. and Providence, R. I.

## PRECIPITATION.

The average for the section, as determined from the records of 75 stations, was 2.91 inches, which was 2.16 inches below the average for August, 1917. During the past 30 years the average August precipitation has been greater in 24 and less in 6 years than that of the present month. The greatest average August precipitation during this time was 5.67 inches, in 1898; the least, 1.66 inches, in 1907. The average precipitation for the several States of the section was as follows: Maine, 2.91 inches; New Hampshire, 4.07; Vermont, 3.33; Massachusetts, 2.30; Rhode Island, 2.50; Connecticut, 2.76. The average for the section was 0.91 inch below the normal for the month. The departures from the normal for the several States were as follows: Maine, -0.58 inches; New Hampshire, +0.07; Vermont, -0.27; Massachusetts, -1.58; Rhode Island, -1.19; Connecticut, -1.66. The greatest monthly amount was 6.71 inches, at Northfield, Vt.; the least, 0.71 inch, at Van Buren, Me. The greatest amount in 24 hours was 3.22 inches, at Northfield, Vt. on the 8-9th. The average number of days with .01 inch or more of precipitation was 9, 2 less than the average for August, 1917, and 1 less than the normal number for the month.

## WIND.

The prevailing direction of the wind was from the southwest, which is the normal direction for the month. The greatest monthly wind movement at any station was 10,207 miles, at Blue Hill Observatory, Hyde Park, Mass.; the least, 2,367 miles, at Concord, N. H. The average hourly wind movement was 8.4 miles, which was 0.3 mile greater than the average for August, 1917, and 0.3 mile above the normal for the month. The highest recorded velocity was 55 miles per hour from the northwest, at Blue Hill Observatory, Hyde Park, Mass. on the 14th. This is somewhat more than the usual maximum velocity for the month.

## SUNSHINE AND CLOUDINESS.

The average number of clear days was 16; partly cloudy, 8; cloudy, 7, which compares with the normal of 13 clear, 10 partly cloudy, and 8 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 61, which was the same as that of August last year, and 1 per cent above the normal for the month. The greatest percentage of possible sunshine at any station was 69, at Eastport, Me.; the least, 48, at Northfield, Vt. The greatest percentage of possible sunshine in any August during the past 26 years was 67, in 1895; the least, 46, in 1915.

## DATES OF MISCELLANEOUS PHENOMENA.

*Halo, Lunar.*—Hartford, Conn., 19.

*Halos, Solar.*—Northfield, Vt., 28; Hartford, Conn., 2, 14.

*Auroras.*—Berlin, N. H., 14; Franklin, N. H., 1; Hanover, N. H., 25; Burlington and Northfield, Vt., 25; Boston, Mass., 15, 16; Fall River and Rockport, Mass., 15.

*Thunderstorms* (dates and number of observers reporting on each): Maine—2d, 1; 5th, 5; 6th, 2; 7th, 6; 8th, 5; 9th, 5; 13th, 2; 14th, 10; 24th, 5; 25th, 2; 26th, 3; 27th, 1. New Hampshire—2d, 2; 4th, 1; 5th, 9; 6th, 3; 7th, 10; 8th, 6; 9th, 7; 12th, 1; 14th, 10; 24th, 2; 25th, 2; 27th, 1. Vermont—5th, 5; 6th, 1; 7th, 7; 8th, 8; 9th, 5; 13th, 1; 14th, 9; 15th, 1; 21st, 1; 26th, 2; 31st, 1. Massachusetts—2d, 5; 3d, 3; 5th, 3; 6th, 1; 7th, 19; 8th, 5; 9th, 18; 10th, 1; 11th, 2; 12th, 1; 14th, 22; 15th, 1; 16th, 1; 24th, 13; 25th, 1; 26th, 11; 29th, 1; 30th, 1; 31st, 1. Rhode Island—4th, 1; 5th, 4; 7th, 3; 8th, 2; 9th, 5; 14th, 6. Connecticut—2d, 5; 3d, 1; 4th, 3; 5th, 8; 6th, 1; 7th, 6; 8th, 1; 9th, 7; 12th, 1; 14th, 10; 15th, 1; 24th, 2; 26th, 5; 29th, 7; 30th, 1; 31st, 5.



## Climatological Data for August, 1918.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				No. of days.				Observer.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.		Cloudy.	Prevailing direction of wind.
Maine.																				
Bar Harbor	Hancock	20	32	64.6	+0.1	91	14	42	19	35	3.53	+0.53	1.73	0	9	25	3	3	w.	Mount Desert Nurseries.
Cornish	York	778	63	66.5	+0.3	94	14	36	18	39	4.86	+0.65	2.65	0	12	14	10	7	se.	L. W. Pease.
Eastport	Washington	53	46	58.8	-0.9	77	20	36	13	27	1.57	-1.69	0.53	0	12	10	11	10	s.	U. S. Weather Bureau.
Farmington	Franklin	450	21	66.3	+1.6	93	14	35	18	42	2.35	-1.34	1.05	0	7	16	8	7	nw.	State Normal School.
Gardiner	Kennebec	163	26	67.8	-0.6	93	14	41	18	34	4.42	+1.00	1.80	0	13	19	4	8	se.	Samuel D. Soule.
Greenville	Piscataquis	1,140	14	62.6		88	14	37	41	35	1.42	-2.38	0.51	0	12	17	7	7	.....	U. S. Weather Bureau.
Houlton	Aroostook	362	16	63.4		86	15	35	19	40	1.51	-1.30	0.63	0	4	20	6	5	w.	Bangor & Aroostook RR.
Lewiston	Androscoggin	185	35	66.8	-0.3	94	14	45	18	31	4.05	+1.69	1.60	0	9	14	11	6	s.	Union Water Power Co.
Madison	Somerset	257	15	66.0		93	15	38	18	38	2.36	-2.13	1.10	0	6	26	1	4	s.	Great Northern Paper Co.
Millinocket	Penobscot	386	15	63.6		89	14	35	19	35	2.28	-1.23	0.55	0	11	13	5	13	sw.	Great Northern Paper Co.
North Bridgton	Cumberland	450	25	66.2	-1.0	93	14	41	41	35	3.74	+0.48	1.98	0	10	15	8	8	n.	C. L. Chadbourn.
Orono	Penobscot	129	49	65.7	+0.2	91	25	38	19	37	2.58	-0.75	1.24	0	7	21	6	4	nw.	Maine State College.
Patten	do	550	16	67.0 <sup>d</sup>		98 <sup>d</sup>	24	34 <sup>d</sup>	6	52 <sup>d</sup>	2.50	-1.19	1.00	0	6	14 <sup>d</sup>	3 <sup>d</sup>	10 <sup>d</sup>	sw.	Bangor & Aroostook RR.
Portland	Cumberland	99	47	65.4	-0.8	93	24	48	18	28	4.64	+1.07	2.05	0	13	11	12	8	s.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	9																	E. M. Libby.
Rumford	Oxford	505	25	66.4	+0.7	90	14	40	18	32	2.62	-0.70	1.27	0	7	22	5	4	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	14	59.5		84	14	32	28	45	0.71	-2.71	0.17	0						Rev. J. M. Thomas.
Winslow	Kennebec	90	23	67.7	+2.0	93	14	34	41	43	3.42	+0.21	2.21	0	6	19	7	5	w.	Hollingsworth & Whitney
New Hampshire.																				
Alstead Center	Cheshire	1,120	14	68.2	-0.5	96	7	42	18	34	2.89	-0.23	1.92	0	7	22	2	7	sw.	Frank Dewing.
Berlin	Coos	1,090	21	64.4		90	14	33	17	40	4.13	+0.42	1.49	0	11	13	13	5	nw.	Brown Company.
Bethlehem	Grafton	1,470	26	65.0	-0.8	90	7	35	18	31	4.11	+0.23	2.11	0	8	18	7	6	sw.	Benjamin Tucker.
Concord	Merrimack	350	57	68.0	+1.4	95	14	40	18	38	3.97	+0.23	2.48	0	10	21	5	5	n.	U. S. Weather Bureau.
Durham	Stafford	88	23	72.4	+4.4	95	16	42	18	39	3.25	-0.05	1.90	0	7	18	2	11	nw.	N. H. Agr. College.
Franklin	Merrimack	440	19	67.4	+1.8	97	14	34	18	42	3.92	+0.08	1.37	0	9	14	10	7	nw.	Gilbert Hodges.
Glencoff	Grafton	1,650	5	63.4		89	7	35	18	35	6.30		3.13	0	9	22	3	6	nw.	State Sanatorium.
Grafton	do	863	32																	P. R. Kimball.
Hanover	do	603	34	67.6	+1.5	97	7	38	18	41	4.53	+0.97	1.73	0	9	15	6	10	nw.	Dartmouth College.
Keene	Cheshire	506	33	68.6	+2.4	99	7	36	19	44	2.64	-1.29	0.23	0	6	18	6	7	sw.	Samuel Wadsworth.
Newton	Rockingham	126	30	66.1	-0.9	95	14	36	18	35	3.11	+0.01	1.33	0	9	12	13	6	se.	W. C. Gale.
Pittsburg	Coos	1575		60.4		83	15	35	41	35	2.99		0.73	0	8	19	7	5	s.	Conn. Valley Lumber Co.
Plymouth	Grafton	500	30	66.3	+0.6	89	13	34	18	37	4.10	+0.18	0.70	0	9	20	3	8	w.	Mrs. Hattie G. Trow.
Vermont.																				
Bloomfield	Essex	404	11	65.2		89	14	33	18	42	4.53	+0.82	2.14	0	12	15	13	3	s.	Lyman Falls Power Co.
Burlington	Chittenden	404	11	66.4	+0.3	91	7	40	18	32	4.01	0.00	1.82	0	11	12	10	9	s.	U. S. Weather Bureau.
Cavendish	Windsor	910	15	66.6 <sup>a</sup>		99	7	34 <sup>a</sup>	18	46	2.32	-1.63	0.95	0	8	21	3	7	.....	Colonial Power Co.
Chelsea	Orange	840	23	64.5	+0.6	90	7	32	18	43	4.25	+0.65	1.80	0	7	16	7	8	n.	W. F. Dewey.
Cornwall	Addison	517	25	69.1	+1.1	100	7	40	18	37	3.27	-0.46	1.45	0	7	19	9	3	s.	C. H. Lane.
Enosburg Falls	Franklin	601	27	68.4	+3.8	90	23	35	18	39	1.81	-2.03	0.47	0	10	24	2	5	w.	J. W. Pomeroy.
Hyde Park	Lamoille	576	6	65.1		92	7	33	18	43	2.42		1.18	0	11	14	10	7	n.	A. V. Wiswell.
Northfield	Washington	876	32	63.8	+0.9	96	7	34	18	39	6.71	+2.78	3.22	0	10	9	13	9	s.	U. S. Weather Bureau.
Rutland	Rutland	562	2	64.4		97	7	36	18	38	2.48		1.27	0	9	23	6	2	nw.	George H. Ross.
Somerset	Windham	2,096	.....																	Power Construction Co.
St. Johnsbury	Caledonia	711	25	67.9	+3.5	96	7	36	18	41	3.62	+0.14	1.55	0	12	17	8	6	n.	Fairbanks Museum.
Vernon	Windham	310	3	70.0	+1.2	102	7	41	19	41	2.36	-1.72	0.69	0	7	11	12	8	n.	Conn. River Power Co.
Wells	Rutland	750	27	67.2	+0.8	95	7	41	18	31	2.18	-1.96	1.08	0	6	16	13	2	s.	E. R. Pember.
Woodstock	Windsor	700	26	65.2	-0.1	96	7	33	18	44	2.31	-0.88	1.06	0	9	17	7	7	.....	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	29	71.5	+3.3	100	7	44	19	42	2.22	-2.17	0.49	0	10	17	10	4	s.	Mass. Agr. College.
Blue Hill	Norfolk	640	34	68.4	+1.0	91	14	49	18	24	1.63	-1.98	0.72	0	7	13	9	9	sw.	Blue Hill Observatory.
Boston	Suffolk	124	48	70.4	+1.5	96	14	53	18	26	1.56	+2.47	2.71	0	8	10	10	11	sw.	U. S. Weather Bureau.
Chestnut Hill	do	124	38	68.2	-1.4	95	14	41	19	38	1.68	-2.21	0.50	0	8	26	0	5	.....	Met. Water Board.
Clinton	Worcester	370	22	69.6		93	7	44	19	40	2.11	-1.29	0.77	0	9	.....	.....	.....	.....	Do.
Concord	Middlesex	139	28	68.3	0.0	94	14	42	19	36	2.14	-1.47	0.71	0	9	10	12	9	se.	Fred A. Tower.
Fall River	Bristol	200	52	70.6	+0.4	90	6	52	18	22	3.98	+0.12	2.34	0	6	11	18	2	se.	C. V. S. Remington.
Fitchburg	Worcester	550	35	70.0	+1.7	94	14	44	19	33	2.14	+1.95	0.72	0	7	18	5	8	sw.	Dr. A. P. Mason.
Framingham	Middlesex	160	33	72.0	+3.2	95	14	44	19	33	1.44	-2.26	0.44	0	9	.....	.....	.....	.....	Met. Water Board.
Lawrence	Essex	51	34	70.5	+0.9	95	14	47	18	31	2.14	-1.80	0.49	0	11	10	17	4	s.	Essex Company.
Lowell	Middlesex	100	33	71.0	+1.6	93	14	47	19	33	2.06	-1.45	0.49	0	9	.....	.....	.....	.....	Props. Locks & Canals.
Nantucket	Nantucket	47	32	67.6	-0.4	88	6	52	28	22	1.62	-1.44	0.92	0	7	14	6	11	sw.	U. S. Weather Bureau.
New Bedford	Bristol	88	106																	City Engineer.
Plymouth	Plymouth	50	33																	Miss L. B. Knapp.
Provincetown	Barnstable	40	31	71.2	+2.0	86	14	53	19	25	2.28	-0.69	1.40	0	7	20	3	8	sw.	Gideon Bowley.
Rockport	Essex	25	16	66.4		91	14	48	4	27	2.35		0.66	0	13	17	6	8	sw.	U. S. C. G. Station
Rutland	Worcester	1,160	16	68.6		94	7	44	18	34	3.85		1.20	0	12	20	5	6	sw.	State Sanatorium.
Springfield	Hampden	199	8	72.5	+1.8	102	7	46	19	36	3.14	-0.87	1.26	0	7	9	9	13	s.	U. S. Army.
Turners Falls	Franklin	200	32																	Turners Falls Co.
Westboro	Worcester	298	44	70.4	+0.7	93	14	42	19	28	2.76	+1.28	0.60	0	7	9	11	11	w.	Miss E. W. Newcomb.
Williamstown	Berkshire	711	37	68.6	+3.3	96	7	42	19	35	2.31	-1.99	0.81	0	10	16	11	4	w.	Williams College.
Worcester	Worcester	518	26																	G. W. Swan.
Rhode Island.																				
Block Island	Newport	26	38	69.2	+0.5	90	6	58	19	22	1.48	-2.00	0.65	0	5	11	8	12	sw.	U. S. Weather Bureau.
Bristol																				



## Daily Precipitation for August, 1918.

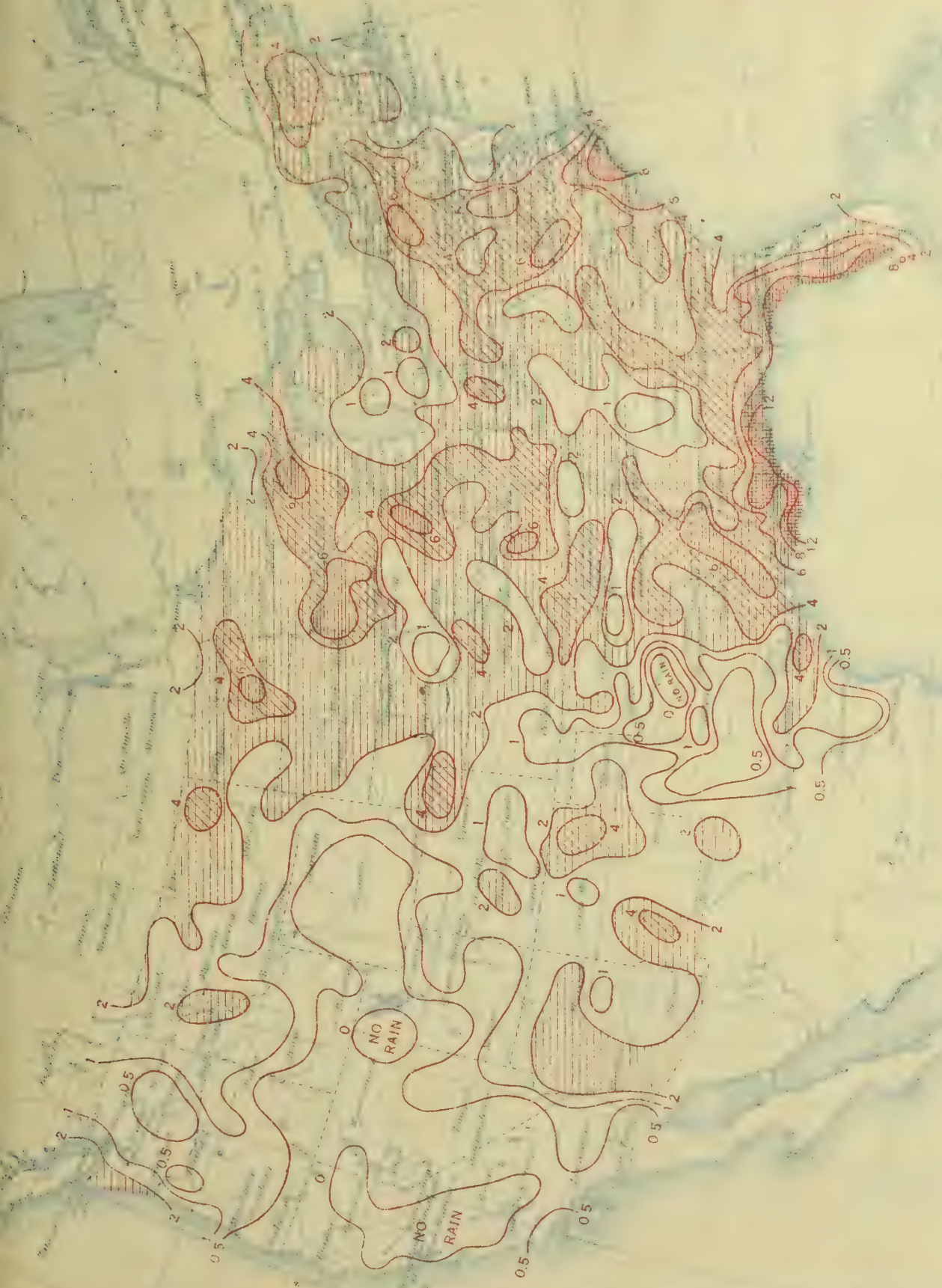
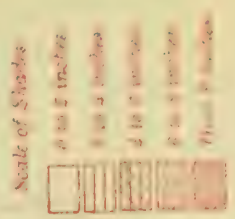
Stations.	Watersheds.	Day of month.																															Total.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Maine.																																			
Ashland	St. John																																		
Bar Harbor	Coast		.25			.80				1.73	.05		.02			.21											.30		.08		.09		3.52		
Cornish	Saco					.04	.25	.08		.30	2.65	.05		.04		.16									1.90	.01				.37			4.86		
Eastport***	Coast									.01	.52														.17	.01	.01		.02	.01	.01		1.57		
Eustis	Kennebec					.27	.02	.03		.02	.55	.06		.07		.67		.02								.01	.69	.02	.12				1.95		
Farmington	do							.05	.18	1.05	.04					.52												.32	.19			2.35			
Gardiner	do		.05		1.15	.05		.25	.01	1.80	.01					.52	.01										.29	.08	.13	.13	.02		4.42		
Greenville***	Penobscot					.02				.51	.01		.02		.07		.01										.07	.08		.09	.03		1.42		
Houlton	St. John					.28	.38																					.63		.22			1.51		
Lewiston	Androscoggin					.16	.17	.37	1.25	1.60					.53											.39	.16		.32			4.95			
Madison	Kennebec					1.10				.20	.44				.12	.35														.15			2.36		
Millinocket	Penobscot		.17		.04	.32				.04	.42			.03	.06											.05	.49		.11		.55		2.28		
North Bridgton	Saco					.13	.05	.36	.14	1.99	.06	.02			.59													.16		.30			3.74		
Orono	Penobscot					.06		.57		1.24	.18				.16	.24														.13			2.58		
Patten	do					1.00				.20					.20	.50												.40		.20			2.50		
Portland***	Coast				.05	.19	.01	.07	1.05	1.49	.01	.09			.66												.59	.01		.48		.62	4.44		
Presque Isle	St. John					.52						.05			.10													.20			.75		1.62		
Rumford	Androscoggin					.40		.33	.61	.72					.25													.02		.29			2.62		
Van Buren	St. John		.10			.17								.16													.04	.11	.04		.02		0.71		
Winslow	Kennebec					.03		.62	.06		2.21																	.45		.05			3.42		
New Hampshire.																																			
Alstead Center	Connecticut					.13					.82			.45		.07												1.92			.48	.02		3.89	
Berlin	Androscoggin		.04		.80	.11	.05	.84	1.04	.45					.13														.07		.08	.52		4.13	
Bethlehem	Connecticut		.05			.28	.38	.19	.06	2.11						1.00															.04			4.11	
Concord***	Merrimack					.16		.04	1.29	1.19	.06	.32			.02												.64	.06		.19				3.97	
Durham	do			.15					.58	1.90					.30													.20		.10	.02			3.25	
Franklin	do					.08		.44	.24	1.37		.12			.55												.61			.49				3.92	
Glencleft	do					.16		.06	.55	3.13	.57				.74		.03													.24		.82		6.30	
Grafton	do																																		
Hanover	Connecticut					.33		.62	1.73	.72		.03			.86	.04	.02														.18			4.53	
Keene	do					.22				.56		.55			.43														.73		.29			2.04	
Newton	Merrimack			.67		.01				1.30	.03	.50			.10													.02	.29		.19			3.11	
Pittsburg (a)	Connecticut			.12			.73			.38	.17		.18			.57														.32		.52		2.99	
Pittsburg (b)	do					.65		.15	.02	.46			.08		.07	.15	.02											.01		.23	.05	.55		2.43	
Plymouth	Merrimack					.21		.02	.53	1.70	.03	.08	.29		.73															.51				4.10	
Vermont.																																			
Bloomfield	Connecticut			.07		.69	.61	.60	1.44	.70			.03			.14	.04										.05			.09		.07		4.53	
Burlington***	Champlain			.11		.01		.17	.51	1.31					.06													.14		.04		.05		1.60	4.01
Cavendish	Connecticut					.05				.95	.09	.26			.66															.09	.10	.12	.10		2.32
Chelsea	do					.14		.10	.15	1.80					.42																.06			4.25	
Cornwall	Champlain			.10		.25			.70	1.45					.01	1.00															.06			3.27	
Enosburg Falls	do					.46		.13	.15	.47			.32	.03													.09		.09	.03	.04			1.81	
Hyde Park	do		.03	.02		.18		.06	.64	1.18					.04												.10	.02	.04	.11				2.42	
Northfield***	Champlain			.02		.01		.52	1.33	2.01	.03				2.10		1.27													.04		.08		6.71	
Rutland	do				.06	.15			.15	.39	.33	.01																			.08			2.48	
Somerset	Connecticut																																		
St. Johnsbury	do					.53	.54	.09	.06	1.55	.02	.01			.62	.09														.04	.05			3.62	
Vernon	do								.02	.33	.53				.44												.77	.18			.20	.17	.69	2.36	
Wells	Champlain			.09						1.08					.64														.14	.10		.13		2.18	
Woodstock	Connecticut					.16			.06	1.06	.07	.06			.51	.07													.20		.12			2.31	
Massachusetts.																																			
Amherst	Connecticut					.02		.06		.26	.32	.16			.39													.05		.06		.49		.41	2.22
Ashland	Merrimack					.15		.01		.61		.22	.01		.17														.09		.14			1.55	
Bakers Bridge†	do			.05		.09				.50		.26				.34														.30		.25		1.79	
Bedford	do			.05		.12		.20		.62		.30			.61													.16	.03	.15		.24		2.48	
Blue Hill	Coast					.12		.19		.72		.28			.16															.02				1.63	
Boston***	do					.06		.21		.71		.20			.11													.15		.03		.09		1.56	
Brockton	Coast																																		
Chestnut Hill	do				.10				.12	.50	.24				.14													.08				.20		.30	1.68
Clinton	Merrimack					.13				*	.77	1.29			.15													.07		.08	.32		.30	2.11	
Concord	do			.03		.06				.71		.31			.58	.01												.03		.21		.20		T	2.14
Fall River	Coast					.28			.03	2.34		.99			.14																	.20			3.98
Fitchburg	Merrimack			.02		.12				.35	.31	.36			.72															.13		.42		2.12	
Frammingham	do					.16		.06		.44		.16			.26								</												



## Daily Temperatures for August, 1918.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean		
Maine.																																		
Bar Harbor	Maximum	72	80	80	68	64	83	80	76	69	66	65	82	78	91	88	78	68	63	51	42	55	50	64	72	61	53	53	56	43	47	56	53	75.5
	Minimum	52	51	53	44	54	55	59	56	58	54	48	56	54	56	56	54	46	51	42	55	50	64	72	61	53	53	56	43	47	56	53	53.6	
Eastport	Maximum	67	63	64	66	58	77	69	65	58	62	61	75	67	51	55	58	46	45	47	50	55	51	50	51	55	49	54	48	47	53	53	51.4	
	Minimum	52	47	52	47	52	54	53	52	52	70	74	67	87	81	93	74	70	69	79	84	86	87	88	87	86	85	77	75	64	81	76	79.6	
Farmington	Maximum	83	81	74	74	81	88	81	87	70	74	67	87	81	93	74	70	69	79	84	86	87	88	87	86	85	78	75	64	81	76	79.6		
	Minimum	53	49	52	39	52	61	61	60	59	59	50	58	64	56	51	43	35	39	43	44	44	46	47	55	58	58	57	42	50	50	56	53.0	
Gardiner	Maximum	80	83	77	71	76	88	84	85	70	75	67	87	81	93	78	77	76	70	75	83	83	88	89	93	85	82	76	74	67	80	77	79.7	
	Minimum	57	51	56	42	58	62	60	62	58	54	53	63	57	62	57	53	46	41	43	49	49	50	50	60	62	74	56	47	51	60	59	56.0	
Greenville	Maximum	77	70	65	69	64	79	76	82	66	54	53	63	57	62	57	53	46	41	43	49	49	50	50	60	62	74	56	47	51	60	59	56.0	
	Minimum	19	14	47	37	51	57	56	56	54	51	49	57	60	63	53	52	44	41	37	46	47	55	58	67	57	54	52	40	47	57	46	51.5	
Millinocket	Maximum	79	81	68	71	63	84	76	83	65	74	61	84	77	89	75	75	66	69	74	84	84	87	86	84	84	87	80	74	61	78	67	76.4	
	Minimum	48	52	48	39	55	56	48	58	53	49	50	52	52	63	56	56	40	37	35	48	51	53	57	68	59	61	53	36	47	58	46	50.8	
Orono	Maximum	73	80	80	68	69	82	86	83	86	70	73	79	84	85	88	78	73	66	69	74	84	84	87	86	84	84	87	80	74	61	78	67	76.4
	Minimum	32	53	53	40	55	59	58	58	61	54	49	58	58	61	58	52	45	39	38	48	48	56	58	66	62	59	53	41	46	49	54	52.9	
Portland	Maximum	70	81	70	66	74	85	72	75	63	61	59	77	71	70	77	71	68	68	72	79	78	82	82	83	75	76	61	75	63	73	73.4		
	Minimum	59	56	55	49	59	62	59	60	55	55	59	58	62	61	57	51	48	50	54	58	61	64	65	63	62	58	54	55	59	58	57.6		
Presque Isle	Maximum	77	70	65	69	64	79	76	82	66	54	53	63	57	62	57	53	46	41	43	49	49	50	50	60	62	74	56	47	51	60	59	56.0	
	Minimum	19	14	47	37	51	57	56	56	54	51	49	57	60	63	53	52	44	41	37	46	47	55	58	67	57	54	52	40	47	57	46	51.5	
Rumford	Maximum	79	81	68	71	63	84	76	83	65	74	61	84	77	89	75	75	66	69	74	84	84	87	86	84	84	87	80	74	61	78	67	76.4	
	Minimum	48	52	48	39	55	56	48	58	53	49	50	52	52	63	56	56	40	37	35	48	51	53	57	68	59	61	53	36	47	58	46	50.8	
Van Buren	Maximum	70	81	70	66	74	85	72	75	63	61	59	77	71	70	77	71	68	68	72	79	78	82	82	83	75	76	61	75	63	73	73.4		
	Minimum	59	56	55	49	59	62	59	60	55	55	59	58	62	61	57	51	48	50	54	58	61	64	65	63	62	58	54	55	59	58	57.6		
New Hampshire.																																		
Akilead Center	Maximum	80	81	71	75	81	88	96	88	76	65	78	84	89	90	77	76	70	67	72	82	82	85	90	83	84	80	75	73	66	76	73	79.0	
	Minimum	52	51	56	47	56	67	68	68	65	60	55	64	62	72	65	53	50	42	43	48	51	58	65	65	62	64	56	48	52	60	56	57.5	
Bethlehem	Maximum	78	81	65	69	79	79	90	85	75	73	73	82	84	88	73	70	62	65	69	76	78	81	86	84	80	83	71	74	65	74	71	76.3	
	Minimum	49	52	47	38	57	65	65	61	63	59	55	57	58	65	59	52	40	35	52	47	47	50	56	66	55	59	48	43	53	59	55	53.6	
Concord	Maximum	80	83	72	74	81	90	86	91	69	66	67	91	89	90	77	78	69	70	72	81	85	88	93	87	86	85	79	76	63	80	69	79.9	
	Minimum	57	51	51	43	59	65	67	65	61	56	56	61	63	66	57	51	48	40	42	45	47	49	58	67	66	66	53	47	53	58	60	56.2	
Franklin	Maximum	82	87	73	75	82	91	88	90	72	63	65	90	89	97	84	80	70	72	76	87	86	89	94	93	87	86	79	77	64	82	72	81.4	
	Minimum	53	47	56	37	58	62	63	65	64	60	55	63	59	67	56	53	43	34	37	42	44	49	59	53	65	60	62	56	47	51	55	53.4	
Hanover	Maximum	82	87	71	74	82	88	97	88	75	67	74	87	89	92	78	77	70	70	73	81	84	86	91	90	86	86	77	77	65	79	69	80.4	
	Minimum	52	43	55	42	58	66	64	66	65	61	55	63	60	69	53	51	43	38	39	43	46	51	55	68	72	58	53	43	54	56	52	54.8	
Keene	Maximum	82	88	79	77	82	91	99	89	83	71	75	83	89	92	95	80	79	74	70	83	86	91	94	84	86	85	78	78	68	82	76	82.6	
	Minimum	51	49	58	42	58	65	68	67	68	62	55	66	61	68	55	48	45	35	36	45	42	55	63	64	63	65	54	72	50	57	52	54.7	
Pittsburg	Maximum	68	75	73	57	67	78	76	72	76	77	72	71	76	80	83	71	62	63	67	66	73	77	74	71	62	68	66	71	69	63	73	71.8	
	Minimum	45	47	44	35	43	59	57	61	59	55	52	51	55	63	48	47	35	37	40	41	41	47	54	52	54	49	47	50	50	52	51	49.1	
Plymouth	Maximum	83	81	71	73	79	84	84	85	73	77	64	86	89	89	77	74	68	70	73	80	82	89	86	88	84	84	74	73	61	78	67	78.1	
	Minimum	52	48	57	37	59	69	64	66	65	60	55	62	59	65	56	50	47	34	37	43	47	55	65	62	58	59	55	42	49	53	60	54.5	
Vermont.																																		
Burlington	Maximum	79	74	63	73	81	77	91	76	70	73	74	84	86	85	76	67	61	65	70	77	81	80	87	80	84	83	70	79	76	74	72	76.5	
	Minimum	52	54	47	46	62	67	64	62	59	62	61	66	64	69	58	56	45	40	42	46	49	63	62	63	57	50	51	51	58	54	54	56.4	
Enosburg Falls	Maximum	81	76	76	64	85	80	87	82	71	78	80	85	87	84	71	70	66	55	49	56	66	66	73	69	62	69	67	41	70	66	70	58.5	
	Minimum	48	51	40	44	63	63	62	67	60	63	61	64	71	70	66	55	49	56	66	73	69	62	63	69	62	69	67	41	70	66	70	58.5	
Northfield	Maximum	79	80	63	73	83	83	93	82	76	67	73	83	88	87	76	70	62	55	60	76	80	88	82	80	83	72	67	65	75				







Stations.	Watersheds.	Day of month.																															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Rhode Island.																															Total		
Block Island ***	Coast.		.10		.06	T.		T.		.65	T.		.07																	.10		1.48	
Bristol .do					.53			.01	1.40	.01	1.14		.22																	.17		3.48	
Greene .do					.41				1.07		1.10		.71																	.14		3.43	
Hope Valley .do						.43															1.95									.10		2.48	
Kingston .do					.42				.20		1.33		.15																	.51		2.61	
Pawtucket .do					.28		T.	.38	.39		.99		.11																	.09		2.34	
Providence **	.do				.31		T.	T.	.65	T.	1.04		.09														10	T.		.22		2.41	
Wallum Lake .do																											T.				T.		
Connecticut.																																	
Bridgeport .do	Coast.			T.	.18	.62		T.		.16	.05	.09	T.		T.															.11		.48	
Canton .do	Connecticut Coast				.62		T.	.22		.90					.01													.11		.26		1.80	
Colchester .do	Coast				.45		T.	.95		.93					.5-															.31		.35	
Cream Hill .do	Housatonic			.04	.73		.05	T.	.03	T.	.85	T.			.05																T.		3.22
Danielson .do	Coast				.92			1.0	1.06		1.30				.66							.05					.30			.60			2.76
East Hartland .do		T.			.91			T.		1.92					.27												T.			.33			4.37
Falls Village .do	Housatonic	.03			.02	.62		T.		.50	.40				.04												T.		.04	.52		1.20	4.86
Hartford **	Connecticut			T.	.27		T.	T.	.46	.51	.49	T.			.55										.09				.05	.43		1.41	3.58
Lake Konomocott .do	Coast				.53					.36	.53																		T.	.38			3.51
New Haven ***	.do	T.	T.	.03	.42		T.	T.	1.07	.02	.12	.01			.35	.34														.28			2.04
New London .do										.60					.38												T.	T.		.17		.32	2.51
N. Grosvenor Dale .do	.do				.36																												

[illegible]

Gardiner, Me.	Evaporation . . . .	17	25	27	21	17	13	12	14	03	13	09	10	15	14	26	17	22	17	15	19	20	13	19	16	21	14	20	18	08	10	14	5.01
	Wind movement . .	50	51	89	51	80	50	30	31	61	70	20	40	40	40	70	31	70	60	30	40	41	20	51	40	30	40	89	41	50	50	40	1.91
Dorchester Cen- ter, Mass.	Evaporation . . . .	133	104	166	113	017	145	235	034	110	060	007	236	093	058	111	119	177	159	124	120	064	034	179	129	057	125	197	186	000	063	3.43	
	Wind movement . .	23	12	15	4	11	1	9	16	111	32	19	1	7	4	19	9	6	17	15	6	13	6	7	10	12	4	8	22	08	6	3.29	

See temperature and precipitation data in Climatological Tables.

\*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

\* Precipitation indicated in that of following day.

Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.; Sewall's Falls, Concord, N. H.

[illegible]



U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU

CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

SEPTEMBER, 1917

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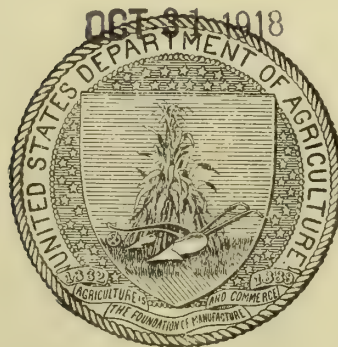
BY

JOHN W. SMITH

METEOROLOGIST

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
OCTOBER 28, 1918



Departure of the Mean Temperature from the Normal, September, 1918.





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

Vol. XXX. BOSTON, MASS., SEPTEMBER, 1918. No. 9.

## GENERAL SUMMARY.

The feature of the month was the unusually heavy rainfall, which was the greatest for the month since 1907, and with two exceptions, the greatest of record for September. The precipitation was not exceptional during the first half of the month, but from the 17th to the 27th, inclusive, rain fell on nearly every day with amounts exceeding one inch at the majority of the stations on a considerable number of days during this time. Except in the extreme southeastern portion of Massachusetts where the rainfall was below the normal, the total for the month exceeded five inches at nearly all stations, and at a few stations exceeded ten inches. The month was also exceptionally cool, the average temperature,  $56.8^{\circ}$  being the lowest of record with the exception of 1893, when it was  $56.1^{\circ}$ . The highest temperature of the month occurred during the first week, and as a rule, was but little above  $80^{\circ}$  at most of the stations, and at a large number of stations was below that point. Killing frost was general in the northern portion of the section on the 11th, but in the southern portion only scattered light frosts occurred during the month. Snow fell on the 22d in the White Mountains.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 13 stations reporting, was 30.04 inches, which was 0.07 inch below the mean for September, 1917, and 0.01 inch below the normal for the month. The highest monthly mean was 30.05 inches, at Portland, Me., Northfield, Vt. and New Haven, Conn.; the lowest, 30.02 inches, at Eastport, Me. The highest recorded was 30.47 inches, at Portland, Me. on the 11th; the lowest, 29.54 inches, at Eastport, Me. on the 6th. The monthly range for the section was 0.93 inch.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 78 stations, was  $56.8^{\circ}$ , which was  $0.3^{\circ}$  below the mean for September, 1917. During the past 30 years the average September temperature has been higher in 29 years and lower in 1 year than that of the present month. The highest average September temperature during this time was  $63.8^{\circ}$ , in 1891; the lowest,  $56.1^{\circ}$ , in 1893. The average temperature for the several States of the section was as follows: Maine,  $54.9^{\circ}$ ; New Hampshire,  $54.4^{\circ}$ ; Vermont,  $54.2^{\circ}$ ; Massachusetts,  $59.2^{\circ}$ ; Rhode Island,  $60.9^{\circ}$ ; Connecticut,  $59.2^{\circ}$ . The average temperature for the section was  $2.8^{\circ}$  below the normal for the month. The departures from the normal for the several States were as follows: Maine,  $-2.6^{\circ}$ ; New Hampshire,  $-3.8^{\circ}$ ; Vermont,  $-2.3^{\circ}$ ; Massachusetts,  $-2.3^{\circ}$ ; Rhode Island,  $-2.5^{\circ}$ ; Connecticut,  $-2.8^{\circ}$ . The highest monthly mean was  $62.6^{\circ}$ , at Bridgeport, Conn.; the lowest,  $48.6^{\circ}$ , at Somerset, Vt. The highest recorded was  $91^{\circ}$ , at North Grosvenor Dale, Conn. on the 1st; the lowest,  $23^{\circ}$ , at Somerset, Vt. on the 24th. The greatest monthly range was  $59^{\circ}$ , at North Grosvenor Dale, Conn.; the least,  $28^{\circ}$ , at Block Island, R. I. The greatest daily range was  $43^{\circ}$ , at Voluntown, Conn. on the 15th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 13 stations reporting, was 82 per cent, which was 2 per cent above the average for September, 1917, and 1 per cent below the normal for the month.

The highest monthly average was 88 per cent, at Concord, N. H.; the least, 74 per cent, at Boston, Mass.

## PRECIPITATION.

The average for the section, as determined from the records of 78 stations, was 6.87 inches, which was 5.27 inches above the average for September, 1917, and the greatest for the month since 1907. During the past 30 years the average September precipitation has been greater in 2 years and less in 28 years than that of the present month. The greatest average September precipitation during this time was 8.29 inches, in 1888; the least, 0.98 inch, in 1914. The average precipitation for the several States of the section was as follows: Maine, 6.86 inches; New Hampshire, 7.24; Vermont, 6.81; Massachusetts, 7.14; Rhode Island, 5.33; Connecticut, 6.70. The average precipitation for the section was 3.32 inches above the normal for the month. The departures from the normal for the several States were as follows: Maine,  $+3.31$  inches; New Hampshire,  $+3.67$ ; Vermont,  $+3.37$ ; Massachusetts,  $+3.50$ ; Rhode Island,  $+2.10$ ; Connecticut,  $+3.07$ . The greatest monthly amount was 10.65 inches, at Rockport, Mass.; the least, 2.06 inches, at Nantucket, Mass. The greatest amount in 24 hours was 3.96 inches, at Rockport, Mass. on the 26th. The average number of days with .01 inch or more of precipitation was 13, which was 6 more than the average for September, 1917, and 4 more than the normal number for the month.

## WIND.

The prevailing direction of the wind was from the southwest, which is the normal direction for the month. The greatest monthly wind movement at any station was 12,877 miles, at Blue Hill Observatory, Hyde Park, Mass.; the least, 2,617 miles, at Concord, N. H. The average hourly wind movement was 9.6 miles, which was 1.4 miles above the normal for the month. The highest recorded velocity was 44 miles per hour from the south, at Blue Hill Observatory, Hyde Park, Mass. on the 20th. This is less than the usual maximum velocity for the month.

## SUNSHINE AND CLOUDINESS.

The average number of clear days was 10; partly cloudy, 8; cloudy, 12, which compares with the normal of 14 clear, 8 partly cloudy, and 8 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 48, which was 15 per cent below the average for September, 1917, the lowest for the month since 1912, and 7 per cent below the normal for the month. During the past 24 years, since the beginning of the automatic sunshine records in 1894, the percentage of possible sunshine in September has been lower than that of the present month in only 3 years, the least being 41 per cent in 1907; the greatest September average during this time was 77 per cent in 1903.

## DATES OF MISCELLANEOUS PHENOMENA.

*Auroras*.—Cornish, Me., 2, 29; Eastport, Me., 2; Burlington, Vt., 24; Northfield, Vt., 7; Blue Hill, Mass., 29, 30; Leominster, Mass., 29; Providence, R. I., 2; Hartford, Conn., 29.

*Halos, Solar*.—Eastport, Me., 3; Burlington, Vt., 18; Blue Hill, Mass., 1, 2, 3; Boston, Mass., 1, 3, 9, 11, 12, 15, 17; Nantucket, Mass., 28; New Haven, Conn., 3, 10, 25, 28; Hartford, Conn., 3, 9, 10, 11, 11, 21, 24.

*Halo, Lunar*.—Boston, Mass., 1; Nantucket, Mass., 16; Block Island, R. I., 14, 16.

*Thunderstorms* (dates and number of observers reporting on each): Maine—1st, 1; 10th, 1; 17th, 2; 18th, 1; 20th, 7; 23d, 3. New Hampshire—1st, 4; 13th, 3; 17th, 5; 20th, 5; 23d, 3. Vermont—1st, 1; 13th, 1; 14th, 2; 17th, 3; 19th, 1; 23d, 2; 24th, 1. Massachusetts—1st, 8; 16th, 1; 17th, 9; 18th, 15; 19th, 4; 20th, 15; 21st, 2; 22d, 1; 26th, 16; 27th, 3. Rhode Island—1st, 1; 17th, 1; 18th, 5; 20th, 1; 26th, 5; 27th, 1. Connecticut—1st, 4; 17th, 3; 18th, 5; 19th, 1; 20th, 4; 26th, 6; 27th, 2.



Climatological Data for September, 1918.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				No. of days.				Prevailing direction of wind.	Observer.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.10 or more.	Clear.	Partly Cloudy.			Cloudy.
Maine.																				
Bar Harbor	Hancock	20	32	56.6	-2.0	78	1	34	12	33	9.77	+6.19	3.14	0	14	15	8	7	se.	Mount Desert Nurseries.
Cornish	York	778	63	55.6	-3.2	83	4	31	25	33	9.02	+5.07	3.48	0	12	9	9	12	sw.	L. W. Pease.
Eastport	Washington	53	46	54.5	-0.7	71	2	37	11	20	4.65	+1.68	1.64	0	12	7	6	17	s.	U. S. Weather Bureau.
Farmington	Franklin	450	21	55.0	-3.1	80	4	29	11	36	8.98	+5.42	2.38	0	15	9	6	15	ne.	State Normal School.
Gardiner	Kennebec	163	26	56.5	-3.3	78	11	33	30	30	7.98	+4.72	1.18	0	15	14	5	11	sw.	Samuel D. Soule.
Greenville	Piscataquis	1,140	14	52.2		75	21	30	11	30	6.52	+2.35	1.07	0	17	7	7	16		U. S. Weather Bureau.
Houlton	Aroostook	362	16	54.8		77	4	30	25	32	5.15	+2.35	1.75	0	7	13	4	13	w.	Bangor & Aroostook RR.
Lewiston	Androscoggin	185	35	56.2	-3.0	76	2	36	30	26	7.70	+4.23	2.19	0	12	11	8	11	s.	Union Water Power Co.
Madison	Somerset	257	15	54.9		79	3	32	11	36	7.13	+2.95	2.21	0	12	15	6	9	nw.	Great Northern Paper Co.
Millinocket	Penobscot	386	15	53.0		79	2	30	11	36	6.23	+2.24	1.45	0	14	9	1	20	nw.	Great Northern Paper Co.
North Bridgton	Cumberland	450	25	56.0	-3.8	78	4	32	11	32	8.72	+4.99	2.78	0	15	11	5	14	n.	C. L. Chadbourn.
Orono	Penobscot	129	49	55.1	-2.0	78	3	31	11	37	4.29	+0.73	1.15	0	11	15	8	7	sw.	Maine State College.
Patten	do	550	16	51.2		85	2	29	21	41	6.00	+1.70	2.00	0	8	6	4	15	ne.	Bangor & Aroostook RR.
Portland	Cumberland	99	47	56.7	-2.9	77	1	39	11	25	5.58	+2.38	1.54	0	15	7	10	13	s.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	9																	E. M. Libby.
Rumford	Oxford	505	25	55.4	-2.4	79	19	34	11	33	7.74	+4.43	2.62	0	12	11	9	10	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	14	53.6		78	3	27	25	33	4.53	+1.33	0.81	0	14					Rev. J. M. Thomas.
Winslow	Kennebec	90	23	56.8	-2.5	78	2	31	25	37	6.66	+3.44	1.68	0	11	10	7	13	sw.	Hollingsworth & Whitney
New Hampshire.																				
Alstead Center	Cheshire	1,120	14	54.6	-5.2	76	2	27	11	29	8.55	+4.96	2.61	0	14	14	5	11	sw.	Frank Dewing.
Berlin	Coos	1,090	21	53.0		81	2	27	10	36	6.03	+2.99	1.72	0	18	5	8	17	n.	Brown Company.
Bethlehem	Grafton	1,470	26	52.8	-3.7	76	2	28	11	31	7.91	+4.12	1.49	0	19	7	8	15	sw.	Benjamin Tucker.
Concord	Merrimack	350	57	56.4	-2.7	82	4	32	23	34	6.96	+3.75	2.73	0	14	7	11	12	nw.	U. S. Weather Bureau.
Durham	Stafford	88	23	56.3	-4.2	80	6	32	11	34	6.43	+2.76	1.21	0	10	17	3	10	nw.	N. H. Agr. College.
Franklin	Merrimack	440	19	55.6	-4.3	82	2	28	11	38	2.85	+4.34	3.07	0	12	7	6	17	ne.	Gilbert Hodges.
Glencoff	Grafton	1,650	5	51.7		77	2	28	11	34	6.96		2.30	0	12	9	6	15	nw.	State Sanatorium.
Grafton	do	863	32																	P. R. Kimball.
Hanover	do	603	84	55.4	-2.4	81	4	29	11	36	6.18	+3.11	1.23	0	12	4	9	17	se.	Dartmouth College.
Keenes	Cheshire	506	33	56.2	-2.9	82	5	29	30	37	7.01	+3.55	2.23	0	14	11	9	10	sw.	Samuel Wadsworth.
Newton	Rockingham	126	30	56.2	-3.9	80	4	27	11	33	7.04	+3.67	1.91	0	10	5	19	6	sw.	W. C. Gale.
Pittsburg	Coos	1575		51.0		72	1	32	26	24	6.97		1.37	0	17	8	4	18	sw.	Conn. Valley Lumber Co.
Plymouth	Grafton	500	30	54.2	-3.2	79	4	30	23	32	7.57	+3.86	1.81	0	13	11	6	13	w.	Mrs. Hattie G. Trow.
Vermont.																				
Bloomfield	Essex		11	54.1		80		25	11	37	8.03	+4.28	1.57	0	21	4	5	21	s.	Lyman Falls Power Co.
Burlington	Chittenden	404	11	54.7	-4.2	77	2	33	11	26	5.67	+2.32	1.08	0	19	4	6	20	s.	U. S. Weather Bureau.
Cavendish	Windsor	910	15	53.8		83	4	28	11	37	7.14	+2.92	1.97	0	18	12	6	12		Colonial Power Co.
Chelsea	Orange	840	23	52.6	-3.6	80	4	25	11	37	5.18	+1.84	1.22	0	14	6	5	19	s.	W. F. Dewey.
Cornwall	Addison	517	25	57.0	-3.9	81	2	33	11	32	7.03	+4.02	1.80	0	13	12	6	12	s.	C. H. Lane.
Enosburg Falls	Franklin	601	27	55.4	-2.6	80	2	27	11	34	9.69	+6.33	2.11	0	21	8	12	10	w.	J. W. Pomeroy.
Hyde Park	Lamoille	576	6	54.0		81	2	26	11	39	6.98		1.55	0	18	5	5	19	nw.	A. V. Wiswell.
Northfield	Washington	876	32	52.4	-2.2	78	2	27	11	34	5.08	+2.32	1.72	0	16	0	6	24	s.	U. S. Weather Bureau.
Rutland	Rutland	562	2	54.8		83	4	31	11	35	6.76		1.50	0	17	10	6	14	se.	George H. Ross.
Somerset	Windham	2,096	7	48.6		79	5	23	24	35	6.10		1.40	0	19	6	15	9	nw.	Power Construction Co.
St. Johnsbury	Caledonia	711	25	55.8	-1.6	82	2	28	11	36	6.30	+2.69	0.88	0	20	6	9	15	s.	Fairbanks Museum.
Vernon	Windham	310	3	57.0	-3.7	80	4	34	27	32	6.70	+2.60	1.43	0	15	8	9	13	nw.	Conn. River Power Co.
Wells	Rutland	750	27	54.6	-4.2	76	4	32	11	28	7.55	+3.72	1.61	0	13	6	10	14	s.	E. R. Peimber.
Woodstock	Windsor	700	26	53.3	-3.4	80	4	25	11	37	7.14	+3.98	1.63	0	12	4	10	16		John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	29	58.0	-2.2	84	4	34	30	38	7.00	+3.25	3.17	0	15	10	11	9	sw.	Mass. Agr. College.
Blue Hill	Norfolk	640	34	58.1	-2.9	78	4	40	22	24	9.36	+5.19	2.70	0	12	12	9	9	sw.	Blue Hill Observatory.
Boston	Suffolk	124	48	61.2	-1.5	81	5	45	11	26	9.19	+6.00	2.42	0	12	8	10	12	w.	U. S. Weather Bureau.
Chestnut Hill	do	124	38	57.6	-5.3	82	4	31	25	40	9.34	+5.42	2.24	0	13	23	0	7		Met. Water Board.
Clinton	Worcester	370	22	58.5		78	4	37	11	26	8.35	+5.33	2.66	0	10					Do.
Concord	Middlesex	139	28	57.1	-3.5	81	5	32	25	32	8.86	+5.39	2.62	0	11	8	14	8	sw.	Fred A. Tower.
Fall River	Bristol	200	52	60.9	-3.0	81	6	44	11	20	4.42	+1.18	1.60	0	9	8	20	2	sw.	C. V. S. Remington.
Fitchburg	Worcester	550	35	58.2	-2.9	81	2	35	11	31	7.53	+3.85	2.44	0	11	15	8	7	nw.	Dr. A. P. Mason.
Framingham	Middlesex	160	33	60.7	-1.3	83	5	37	25	34	8.29	+4.58	2.73	0	10					Met. Water Board.
Lawrence	Essex	51	34	60.1	-1.7	82	4	37	25	29	7.97	+4.82	1.46	0	12	3	23	4	w.	Essex Company.
Lowell	Middlesex	100	33	60.3	-1.7	81	4	36	25	34	7.71	+4.08	2.26	0						Props. Locks & Canals.
Nantucket	Nantucket	47	32	62.2	-0.6	77	5	44	11	20	2.06	-0.67	1.14	0	8	9	9	12	ne.	U. S. Weather Bureau.
New Bedford	Bristol	88	106																	City Engineer.
Plymouth	Plymouth	50	33	56.6		75	4	42	12	24	3.44	-0.12	1.26	0	10	19	4	7	e.	Miss L. B. Knapp.
Provincetown	Barnstable	40	31	62.2	-1.6	77	5	46	25	23	3.59	+0.28	1.03	0	9	19	3	8	sw.	Gideon Bowley.
Rockport	Essex	25	16	59.5		74	1	43	23	23	10.65		3.96	0	12	16	7	7	sw.	U. S. C. G. Station.
Rutland	Worcester	1,160	16	56.4		78	2	37	10	37	6.81		1.60	0	13	13	9	8	sw.	State Sanatorium.
Springfield	Hampden	199	8	60.4	-2.6	84	4	37	25	32	5.40	+2.07	1.18	0	11	5	13	12	n.	U. S. Army.
Turners Falls	Franklin	200	32																	Turners Falls Co.
Westboro	Worcester	298	44	59.2	-3.3	80	2	34	25	30	10.31	+6.73	3.52	0	7	5	17	7	sw.	Miss E. W. Newcomb.
Williamstown	Berkshire	711	37	56.5	-2.5	78	5	33	11	31	6.44	+3.19	2.24	0	15	8	12	10	w.	Williams College.
Worcester	Worcester	518	26	60.5	-0.9	81	5	43	25	22	6.01	+2.50	1.69	0	12	9	14	7	sw.	G. W. Swan.
Rhode Island.																				
Block Island	Newport	26	38	61.7	-2.4	77	6	49	27	18	3.31	+0.31	1.78	0	11	11	6	13	nw.	U. S. Weather Bureau.
Bristol	Bristol	53	32	61.2	-2.5	79	6	44	25	20	4.50	+1.37	1.66	0	10	18	7	5	nw.	N. G. Herreshoff.
Kingston	Washington	250	29	60.0	-2.4	82	6	39	30	28	5.46	+1.83	2.63	0	11	10	13	7	w.	Nathaniel Helme.
Providence	Providence	160	14	60.6	-2.6	81	6	42	25	27	8.04	+4.87	2.39	0	11	6	16	8	nw.	U. S. Weather Bureau.
Connecticut.																				
Bridgeport	Fairfield	20	25	62.6		82	2	40	22	31	4.66	+0.98	0.95	0	9	12	10	8	s.	William Jennings.
Canton	Hartford	906	57	58.1	-2.4	79	4	34	30	35	5.96	+1.27	2.10	0	10	14	6	10	nw.	G. J. Case.
Colchester	New London	370	32	59.4	-2.8	82	2	35	25	37	8.98	+5.36	2.26	0	11	15	9	6	w.	S. P. Willard.
Cream Hill	Litchfield	1,360	22	56.2	-5.1	77	4	34	27	16	6.99	+3.07	2.40	0	16	13	4	13	w.	C. L. Gold.
Danabson	Windham	309	16	59.0		79	5	36	25	29	8.86	+4.67	2.50	0	8	15	10	5	n.	F. E. Bitgood.
Hartford	Hartford	159	20	60.1	-1.6	81	2	38	25	32	4.89	+1.39	1.84	0	13	8	13	9	s.	U. S. Weather Bureau.
New Haven	New Haven	127	131	61.0	-2.9	78	2	42	27	25	6.16	+2.37	2.06	0	12	14	7	9	n.	U. S. Weather Bureau.
New London	New London	47	43																	

The departures from normal temperature and precipitation are computed only for such stations as have ten or more years of record, but all complete reports are used in determining section or State means. Reference letters, a, b, c, appearing in the table indicate number of days missing; for example, <sup>b</sup> represents two days, etc.

<sup>1</sup> Also on other dates. <sup>2</sup> Received too late to be included in means and summaries. <sup>3</sup> Temperature data are from observed readings of the dry bulb; means are computed from observed readings. T. Precipitation is less than 0.01 inch rain or melted snow. <sup>4</sup> Thermometers not supplied by Weather Bureau.

\* Also on other dates. \*\* Temperature data are from observed readings of the dry bulb; means are computed from observed readings. † Precipitation is less than 0.01 inch rain or melted snow. § Thermometers not supplied by Weather Bureau.



## Daily Precipitation for September, 1918.

Stations.	Watersheds.	Day of month.																															Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Maine.																																		
Ashland	St. John		.02			.40																												
Bar Harbor	Coast	.90					.43			.62				.67	.26				.08	.90	1.35	.70			.59	.12	.04	3.10		.01			9.75	
Cornish	Saco	.30		.01				.35					.92				T.		.12	1.28	1.40	.83		.15	.18		1.90	1.58					9.02	
Eastport***	Coast	.63				.18		.10	.36				.01					.03	.32	.01	1.32	.63	T.	.02		T.	1.04			T.			4.65	
Eustis	Kennebec	.23			T.	T.			.09	.01			T.	.83	.35		.02	.12	.50	.49	.35	1.22	.01		.25	T.	.83	.53	.01	.03	.01		5.98	
Farmington	do	.45			.04	.03			.25				T.	.88	.10			.23	.45	.46	.95	1.08		.21	.56		.97	2.38				8.98		
Gardiner	do	.58				.32	.01		.39					.65	.02			.42	.55	.52	.67	.69		.56	.62		.80	1.18					7.98	
Greenville**	Penobscot	.65				.03	.01		.15	T.			T.	.66	.30		.02	.18	.38	.36	.66	1.07	T.	.16	.18		.73	.97		.01			5.15	
Houlton	St. John													.74				.16	.22	.32	.90	.37					1.43						7.70	
Lewiston	Androscoggin	.36				T.		.01	.38					.58				.72	.68		1.21	.65		.46	.46		1.00	1.19					7.13	
Madison	Kennebec	.40		.02	.02				.27					.74				.26	.75		* 1.94				.42		.78	1.53					6.23	
Millinocket	Penobscot			.02	.11				.24	.04				1.33				.33	.91	.06	1.38	.15		.09	.06		1.45	.06					8.72	
North Bridgton	Saco	.20			T.	T.		.01	.39				T.	.82	.02			.48	.85	.20	1.26	.95		.22	.53		1.40	1.38	.01				4.29	
Orono	Penobscot	.48				.21			.60					1.15				.18			.15			.03	.35	.17	.13	.84					6.00	
Patten	do			.60							.20			.00				.20			1.00	2.00	.80				.60						5.58	
Portland***	Coast	.18			.01	.02		.23	.19				T.	.52				T.	.89	.82		.52	.26		.13	.24		.98	.56		.03			7.74
Presque Isle	St. John																																4.53	
Rumford	Androscoggin	.68						.06	.20					.90				.08	.93		.99	.81		.02	.45		1.58	1.04			T.		7.65	
Van Buren	St. John	.40			.15	.10	.30		.10					.75	T.	T.		.25	.28	.37		.27	.66	.04			.81		.05				6.06	
Winslow	Kennebec	1.10				.04		.37						.81				.36	.70		* 1.21		.02	.37		1.68								
New Hampshire.																																		
Alstead Center	Connecticut	.38				T.	.60	T.	T.	.28			.18	.85	.02		T.	.18	1.08	.03	1.14	1.02			.18		2.14	.47			T.		8.55	
Berlin	Androscoggin			.04	T.		.18		T.	.03			.22	.89			T.	.08	.08	.44	T.	1.72	.12	.02	.22	.28	.62	1.03	.02	.02	.02			6.03
Bethlehem	Connecticut	1.07			.47	.05		.10	T.				.03	.79			.07	.47	.86	.06	.27	1.49		.09	.77		.74	.44	.03	.08	.03		7.91	
Concord***	Merrimack	.20			T.		.26	.12					.18	.36				.81	.96		.75	.38		T.	.10	.01	2.62	.12					6.96	
Durham	do							.59						.78				.02	.71	.19	.83	.94			.22		1.21	.94					6.43	
Franklin	do	.30		.01			.31						.07	1.00	.01			.09	1.00		* 2.09				.30		3.07						8.25	
Glencliff	do			.60		.14						T.		.86				.09	.71		* 1.11				.95		2.30	T.			.06		6.96	
Grafton	do																																	
Hanover	Connecticut	.80			.31		T.	.12	T.				.15	.59		T.	T.	.08	.90	T.	.11	.93	T.	T.	.32	T.	1.23	.64			T.		6.18	
Keene	do	.52		.04	.05		.03	.20		.03	.83	T.		.03	.83	T.		T.	.13	.93		.55	.74		.16		2.23	.57					7.01	
Newton	Merrimack	.18			T.		.60			.05	1.23			.50	.78			.50	.78		1.25	.39		.15		1.91							7.04	
Pittsburg (a)	Connecticut				.41					.15	.35	.49		.12	.15	.35	.49		.12	.15	.35	.49		.17	.21	.28	.05	1.23	.23	.28	.06		6.97	
Pittsburg (b)	do				.88	.06		.02		.25	.40	.60		.10	.48	.30	.35	.10	1.15				.50	.55		.90	.82	.31	.30	.08			7.65	
Plymouth	Merrimack	.67			.06		T.	.20		.08	1.34	T.		.22	.89	T.	.84	.55				.05	.21		1.81	.70					T.		7.57	
Vermont.																																		
Bloomfield	Connecticut	.80			1.04			.06	.04			.04	.21	.61			.04	.63	.42	.10	.20	1.15		.14	.63	.10	.89	.68	.08	.10	.07		8.03	
Burlington**	Champlain	.01		T.	.04	.48			.04	.05			.14	.72			.28	.65	.32		.39	.53	T.	.15	.46		1.04	.04		.08	.01		5.67	
Cavendish	Connecticut	1.47			.43			.15				.09	.57	.12	.11		.01	.13	.83	.02	.35	.15	.02		.20	.01	1.97	.51					7.14	
Chelsea	do				.24		.16					.08	.26				.08	.22	.65		.25	.85		.04	.38		1.22	.70		T.			5.18	
Concord	Champlain	1.58			T.	.41		.05		.10	.42		.10	.30	.92			.10	.30	.92		.80	.05	T.	.30		1.00	.80		T.			7.03	
Enosburg Falls	do	2.11		.05	.17	.74	.03		.18		.26	.23	.14	T.	.21	2.06	.32	.09	.23	.60			T.	.37	T.	.47	1.11	.13	.11	.08			9.69	
Hyde Park	do	1.55				.48		.06		.17	.43	.06		.05	.57	.33	.06	.13	.61				.11	.61		.74	.90				.05	.07	6.98	
Northfield**	Champlain	.21			.57		.02		.03		.06	.37		.03	.40	.54		.03	.40	.54		.36	.39		.08	.25	.01	1.72	.04	T.			5.08	
Rutland	do	1.50			.27	.14		.01		.08	.11	.16		T.	.10	.13	.68	.21	1.11					.40	.15	.88	.87	.01	T.				6.76	
Somerset	Connecticut	T.			.20	.18		.09		.12	.22	.21		* 1.0		.95	.45	.78	.04				.12	.14	1.12	1.25	.02		.11				6.10	
St. Johnsbury	do	.66			.52	T.		.02	.01		.11	.42	T.		.04	.39	.27	.38	.28	.88	.02	.02	.57		.12	.85	.74	.08	.03	.01			6.30	
Vernon	do		.02		.21		.19		.63	.08			.03	.83	.60	1.40	.02						.11	.02	1.06	1.13					.07		6.70	
Wells	Champlain	1.61			.28		.06		.05	.61			.05	.61			.05	.39	.68		.49	1.04		.54		1.10	.65						7.55	
Woodstock	Connecticut	1.45			.47		.11		.09	.43				.15	.91			.15	.91		.43	.70		.21		1.63	.46						7.14	
Massachusetts.																																		
Amherst	Connecticut	.30			.23	.03		.31	.03		.26	.41					.02	.66			.87	.27		.13		3.17	.20			.11			7.00	
Ashland	Merrimack							.83			.75						.01	1.07			.50	1.67		.05		2.68				.14			8.70	
Bakers Bridge**	do	.25						.86			.75						.01	1.20			.45	.85		T.		1.98							8.20	
Bedford	do	.24				T.	.12	.69			1.56						.11	1.15			.36	.79		.08		.02	1.87	.75					7.74	
Blue Hill	Coast	.51			T.	T.	.32	.77		.10	2.70			.10	2.70			.05	1.29		.56			.07	T.	1.65	.62						9.36	
Boston**	do	.30			T.	T.	.74	.31		.12	2.30			.12	2.30		T.	.04	1.63		.97	.36		.01	T.	2.12	.29			T.			9.19	
Brockton	Coast	.38					.73	T.			.21	.01					T.	.30	.47	1.37	.88	T.		.04		3.06	1.02						10.27	
Chestnut Hill	do																																	

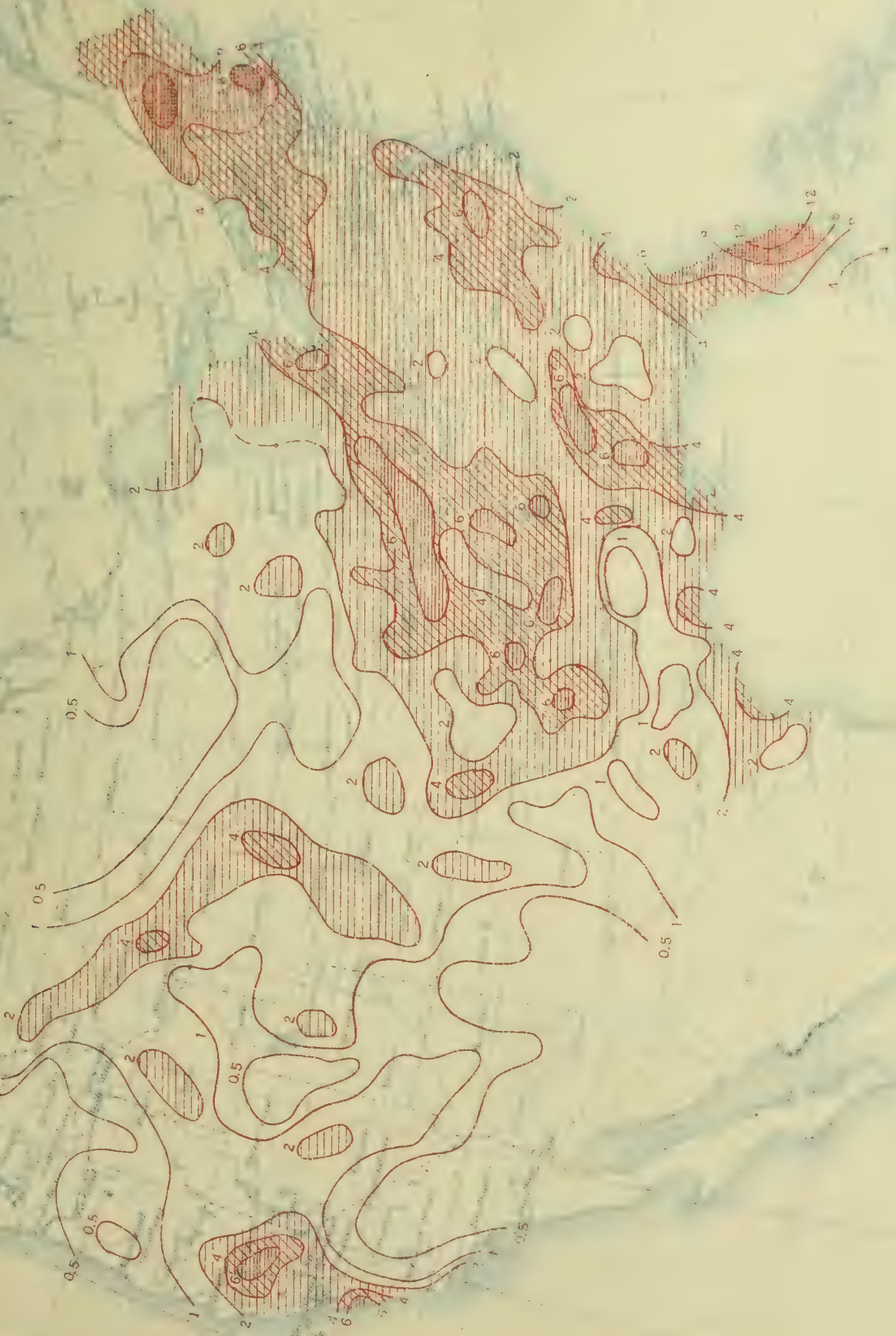


Daily Temperatures for September, 1918.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean	
Maine.																																	
Bar Harbor	Maximum	78	76	73	69	61	69	69	69	64	68	68	61	59	71	70	68	69	65	70	65	63	59	63	58	58	53	55	63	65	64	65	65.4
	Minimum	53	49	46	51	50	59	56	51	50	47	35	34	42	53	46	47	53	55	55	50	44	44	44	38	36	47	54	53	37	47	47.7	
Eastport	Maximum	68	71	64	63	61	70	70	65	60	64	56	54	56	67	66	64	54	58	60	62	57	55	51	41	42	54	55	60	58	56	60.9	
	Minimum	55	51	51	51	57	57	57	52	52	44	37	41	49	54	52	49	54	52	49	45	47	42	42	42	44	54	45	46	40	48	48.1	
Farmington	Maximum	76	77	75	80	73	77	70	66	73	69	65	60	55	67	73	67	65	62	70	65	60	55	61	52	48	54	55	69	65	63	65.9	
	Minimum	59	45	50	52	58	56	45	42	50	43	29	40	44	45	39	42	54	50	41	45	45	35	38	40	32	35	45	42	43	44	44.2	
Gardiner	Maximum	78	78	75	75	70	74	72	65	69	71	63	61	58	70	73	68	70	67	72	66	60	56	64	53	60	53	57	68	68	61	66.5	
	Minimum	60	50	51	51	57	63	58	46	52	49	36	40	40	47	43	44	58	51	45	46	47	38	38	43	37	44	44	49	33	46	46.5	
Greenville	Maximum	71	75	75	72	68	72	59	61	69	63	59	50	53	61	71	60	61	60	67	57	54	47	51	49	58	45	53	65	59	52	60.6	
	Minimum	55	45	52	52	51	57	52	41	49	45	30	36	44	46	41	48	51	43	41	44	38	37	35	38	32	43	45	45	35	42	43.7	
Millinocket	Maximum	75	76	77	70	67	71	67	65	70	67	61	53	59	67	73	65	61	65	60	69	57	51	54	52	49	50	49	58	47	62	54	62.0
	Minimum	58	43	41	50	54	63	53	40	51	43	30	34	43	45	42	45	51	44	49	44	48	41	39	35	33	34	47	41	46	34	44.4	
Orono	Maximum	71	76	78	73	73	69	70	69	74	66	68	61	60	68	72	72	67	65	68	64	64	54	57	51	58	61	55	65	64	65.5	64.3	
	Minimum	58	48	48	50	55	61	55	45	52	47	31	35	44	48	43	40	53	50	40	57	37	39	37	32	32	36	39	45	34	44	44.3	
Portland	Maximum	77	73	69	69	64	76	65	63	66	69	53	56	53	71	68	72	68	57	72	67	57	56	52	53	55	56	57	67	60	61	64.1	
	Minimum	61	54	55	58	58	62	53	50	52	47	39	44	51	51	50	47	57	51	48	47	46	41	44	40	46	45	45	45	46	39	49.3	
Presque Isle	Maximum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	Minimum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Rumford	Maximum	73	76	73	78	70	78	62	65	70	66	60	56	56	65	70	68	70	60	79	63	52	51	57	50	57	48	52	64	60	54	63.4	
	Minimum	54	49	54	60	62	59	49	44	52	45	34	33	48	49	46	46	54	48	46	51	46	42	40	46	36	42	47	47	46	36	47.3	
Van Buren	Maximum	72	72	78	74	65	75	63	69	72	62	60	60	47	59	65	70	59	62	60	66	58	55	54	56	56	54	52	56	54	59	64.4	
	Minimum	57	39	49	52	49	55	49	40	50	30	29	28	44	49	42	50	51	40	61	48	45	38	34	29	27	42	38	40	34	29	42.9	
New Hampshire.																																	
Alstead Center	Maximum	72	76	72	77	76	69	60	58	71	67	60	59	60	62	68	68	67	53	68	62	55	53	60	56	65	51	51	67	62	52	63.2	
	Minimum	54	51	55	53	61	55	47	45	59	48	33	43	48	48	42	54	53	42	46	53	42	38	38	47	36	42	35	89	42	35	46.1	
Bethlehem	Maximum	69	76	73	76	73	71	56	59	67	58	59	55	61	60	70	63	67	58	65	57	52	47	59	53	48	47	65	61	54	61.1		
	Minimum	55	47	56	57	57	52	49	40	47	45	28	44	45	50	42	51	50	38	48	45	40	34	37	44	33	40	35	43	45	34	44.4	
Concord	Maximum	76	79	73	82	80	78	64	64	73	70	61	61	59	67	72	74	74	50	74	71	58	56	66	59	59	51	58	72	65	62	67.2	
	Minimum	55	48	52	58	62	56	50	48	54	43	33	40	50	45	41	47	48	46	43	51	44	36	32	40	38	47	40	42	45	35	45.5	
Franklin	Maximum	77	82	76	82	78	66	64	74	72	53	60	59	71	74	73	71	58	74	59	58	58	68	60	58	57	57	74	68	63	67.9		
	Minimum	58	44	47	55	60	60	49	42	47	47	28	34	50	43	43	44	55	40	41	49	45	33	30	30	34	45	33	39	46	30	43.4	
Hanover	Maximum	75	80	78	81	76	72	63	61	78	67	65	62	67	74	73	71	55	70	59	58	57	64	54	50	52	73	65	56	65	66	67.9	
	Minimum	56	44	52	60	61	55	50	42	49	45	29	45	48	46	44	51	53	40	45	46	44	32	32	40	35	45	32	47	40	30	45.1	
Keene	Maximum	77	81	76	81	82	73	65	64	75	72	65	65	61	67	76	73	76	58	72	68	59	57	65	58	60	54	58	73	66	60	67.9	
	Minimum	59	44	49	57	64	59	45	42	46	44	30	45	50	41	39	43	51	41	50	52	44	32	33	48	32	36	43	29	44	44.4		
Pittsburg	Maximum	72	79	71	68	69	67	68	71	69	65	67	64	56	57	63	64	63	54	54	50	54	52	51	53	43	52	53	45	42	47	59.6	
	Minimum	48	50	50	47	47	48	47	49	48	47	49	50	37	36	45	49	50	35	36	42	38	37	39	38	34	32	34	36	34	37	42.3	
Plymouth	Maximum	72	75	71	79	75	71	62	63	70	64	60	55	58	65	68	70	70	57	70	64	54	54	62	54	56	50	52	70	61	55	63.7	
	Minimum	58	44	50	60	63	57	52	40	50	39	31	39	47	45	44	42	49	42	40	43	35	38	30	45	34	45	37	40	50	31	44.7	
Vermont.																																	
Burlington	Maximum	72	77	73	72	73	57	61	62	71	58	59	60	61	68	72	70	65	57	64	51	57	54	59	57	59	52	55	62	62	51	62.4	
	Minimum	52	51	64	61	57	52	45	43	48	42	33	50	53	52	48	57	50	40	51	46	45	44	44	40	38	41	37	49	41	35	47.0	
Enosburg Falls	Maximum	70	80	79	72	73	70	62	68	70	68	61	58	64	66	75	72	69	60	65	55	55	52	59	59	61	52	47	60	58	55	63.8	
	Minimum	60	49	70	60	62	59	59	38	40	43	27	44	53	52	42	59	52	41	49	44	44	37	45	47	34	43	37	44	43	30	46.9	
Northfield	Maximum	70	78	71	77	76	68	61	60	71	60	60	54	69	65	70	68	67	56	66	55	55	51	61	56	56	49	53	67	57	53	62.3	
	Minimum	48	44	53	57	56	52	39	36	44	32	27	46	48	46	39	54	44	39	45	43	42	36	35	30	44	32	48	40	36	42.4		
St. Johnsbury	Maximum	74	82	81	82	78	77	65	63	76	75	64	63	64	64	74	73	64	56	70	68	57	52	63	58	61	56	46	66	65	59	66.5	
	Minimum	57	46	51	61	58	56	52	38	48	44	28	43	47	47	43	52	51	40	43	45	44	36	38	47	35	38	36	43	36	45.1		
Wells	Maximum	70	75	74	76	76	72	59	60	70	62	60	64	62	60	70	70	68	56	64	57	50	52	60	55	56	52	49	65	64	54	62.7	
	Minimum	55	50	56	60	58	52	41	46	46	50	32	49	54	49	45	54	52	43	48	46	42	36	39	45	37	44	35	45	48	34	46.4	
Massachusetts.																																	
Amherst	Maximum	80	81	78	84	82	72	68	62	76	72	68	69	69	66	77	72	76	54	77	70	61	59	66	63	61	54	59	72	65	63	69.2	
	Minimum	56	48	53	58	66	56	48	48	52	47	36	48	53	46	39	50	52	47	52	50	45	37	41	36	48	37	40	41	34	46	46.9	
Blue Hill	Maximum	75	73	73	78	73	75	62	60	61	72	55	64	59	66	69	71	74	61	71	70	60	55	61	57	59	58	59	68	65	60	65.6	
	Minimum	61	58	59	54	59	64	52	50	50	54	41	44	54	59	53	53	57	51	51	60	45	40	41	49	45	48	41	44	5			



0.5	1	2	4	6	12
0.5	1	2	4	6	12
0.5	1	2	4	6	12
0.5	1	2	4	6	12
0.5	1	2	4	6	12
0.5	1	2	4	6	12





## Daily Precipitation for September, 1918—Continued from page 69.

Stations.	Watersheds.	Day of month.																															Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Rhode Island.																																		
Block Island***	Coast	.02						.03		.30	.04		.24	1.54					.35		.13	.12				T.	.29	.25						3.31
Bristol	do	.04								.53			*	1.66					.51		.32	.62				T.		.82						4.56
Greene	do	.14								.78				1.36				.38	2.41		1.39						.79	.86						8.11
Hope Valley	do									.96			2.00							1.02	1.43			.72			.37					.35		6.85
Kingston	do	.04						.03		.21	.37		1.00	1.63					.83		.17	.40					.28	.50						5.46
Pawtucket	do	.36		T.					.99					2.29				*	1.52		.68	.56				T.								8.82
Providence***	do	.19						T.	T.	.57	.09			15.20				.03	1.42	T.	.98	.20				T.	T.	2.20	.20					8.04
Wallum Lake	do																																	
Connecticut.																																		
Bridgeport	Coast							T.	.19	.23				.95			.90	.82		.80	.45							.35	.02			T.		4.66
Canton	Connecticut	.52			.02		.10							.72			.14	.70		*	1.64							2.10			.06			5.96
Colchester	Coast	.18						T.	*	.82			*	1.49			T.	2.26		*	1.29				T.	*		2.00	.94					8.98
Cream Hill	Housatonic	1.40					.22	.01	*	*	*	*	*	.68			.10	.63			.50	.70			.10			2.40	.25					6.99
Danielson	Coast								1.10					1.58			.55	.60			1.08	.85						2.50			.60			8.86
East Hartland							.08	T.	.35		.60						.16		.50	.88				.04			.94	1.93				.60		5.48
Falls Village	Housatonic						.39		.24					.57			.08	.66		1.00	.20						T.	2.34			.07			5.55
Hartford***	Connecticut	.22					.13		.35	.01				1.10	.50		.08	.72		.63	.28				.01			1.84			.02			4.89
Lake Konomocoff	Coast	.05							.57					1.97				3.45	.17	.97	.60							20.12	.20					9.18
New Haven***	do	.08					T.	T.	.57	T.			.09	1.97			T.	.31	1.47	.01	1.01	.24			T.	T.	.02	.37			.02			6.16
New London	do								.15	.31			.30	1.50				1.30	1.10	.83	.51							.05	.21	.40				6.66
N. Grosvenor Dale	do	.74							1.03					1.68				2.08		1.07	.77					.02		1.96	.66					10.01
Norwalk	do																																	
Southington	do	.90					.05	T.	T.	.20				.30				.50	T.	.70	.35				T.			1.40	.60					5.00
Storrs	Coast																																	
Torrington	Housatonic													.65				.95	.40	.75							1.00	1.25						5.00
Voluntown	Coast	.20								.90			*	1.20				2.50		.68	.60				.02				1.14					7.24
Waterbury	Housatonic	.72					.03		.10	.18				.82	T.			.82		.44	.45							1.25	.02		T.			4.83

## Special River Rainfall Stations.

<i>Maine.</i>																																		
Brownville	Saco								.30	.30					.90			.38	.62	.13	1.15	.58				.30		1.66						6.02
Mattawamkeag	Penobscot								.32	.30					1.25			.33	.95	.15	1.85	.20				.15		1.20	.15	T.				6.85
<i>New Hampshire.</i>																																		
Franklin Junction	Merrimac	.30				T.				.32			.10	1.00	.10		.10		.95	T.	2.22				T.	.22		3.13						8.44
Lancaster	Connecticut	.89						.24			.06	.05	.90		.04	.92	.39	.22		1.45	.12	.06	.22				.16	1.10		.09				6.41
Manchester	Merrimac	.30				T.				.45			.65	.09		.03	.32	.81	T.	.91	.04			.11	.09	.78	1.80							6.36
Sewall's Falls**	do	.23			.01					.37			.02	.72				1.76		1.35				.17				3.02						7.65
West Stewartstown	Connecticut					T.	.68			.03			T.	.23	.71		.05	.22	.12	.55		1.32	.05	.08	.27	.21	.18	1.38	.13	.12				6.33
<i>Vermont.</i>																																		
Bellow's Falls	Connecticut	.39					.45		.21			.11	.37	.20			.07	.08	.99	.25	1.20	.03			.10	.05	1.06	1.70						7.26
Wells River	do	.80					.48				.40	.30			.42				.70		.76							.60						5.46
White River Junction	do	.86				T.	.30		.12			.11	.36	.32		T.	.05	.01	.86	.05	.82	T.	.05	.14	.09	.80	.98	T.						5.92
<i>Massachusetts.</i>																																		
Holyoke	Connecticut	.70					.49		.40				.65	T.			.03	T.	.78	.47	.72	T.		.07	.03	1.08	1.65							7.07

## Daily Evaporation (inches) and Wind Movement (miles).

Gardiner, Me.	Evaporation	.18	.15	.15	.10	.09	.03	.16	.10	.14	.06	.15	.07	.05	.10	.13	.07	.07	.08	.12	.02	.06	.11	.06	.05	.16	.02	.09	.12	.11	.10	....	2.90
	Wind movement	.41	.30	.30	.40	.30	.50	.51	.50	.100	.40	.51	.39	.80	.40	.39	.20	.40	.110	.71	.20	.100	.80	.30	.50	.20	.50	.160	.120	.50	.40	....	1,663
Dorchester Center, Mass.	Evaporation	.093	.174	.148	.080	.068	.082	.116	.081	.054	.039	.127	.114	....	.007	.111	.093	.037	.087	.105	.052	.088	.071	.096	.090	.041	.050	.115	.104	.096	.138	....	2,593
	Wind movement	.14	.14	.8	.12	.3	.8	.25	.10	.40	.18	.32	.19	.34	.16	.17	.8	.6	.12	.20	.6	.21	.35	.27	.10	.5	.15	.11	.25	.16	.37	....	17.5

|| Observations taken at 6 p. m.

||| Observations taken at 7 a. m.

See temperature and precipitation data in Climatological Tables.

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations.

T. Precipitation is less than 0.01 inch rain or melted snow.

\*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

\*\* Precipitation indicated in that of following day.

† Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.; Sewall's Falls, Concord, N. H.

## Comparative Data for New England for September.

Year	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.								
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888.....	57.7	88	18	8.29	14	0	7	8	15	....	sw.	8.9	68	ne	1904.....	57.9	88	18	5.31	6.05	11	0	12	8	10	59	sw.	8.6	84	nw.	
1889.....	59.3	90	17	4.11	13	0	7	15	15	....	ne.	10.1	66	ne.	1905.....	58.9	89	22	5.41	5.19	10	0	13	6	11	58	nw.	7.5	48	nw.	
1890.....	60.4	86	20	5.40	13	0	10	7	13	....	sw.	8.3	46	sw.	1906.....	61.8	97	24	2.36	2.41	7	0	18	7	5	69	sw.	8.7	50	nw.	
1891.....	61.8	92	30	2.28	10	0	13	10	7	....	sw.	7.6	48	ne.	1907.....	60.8	93	23	7.75	4.62	13	0	8	6	14	41	sw.	8.5	53	s.	
1892.....	58.5	88	27	2.24	7	0	18	7	6	....	sw.	9.0	52	sw.	1908.....	62.5	95	23	1.09	2.10	3	0	19	6	5	64	sw.	8.3	53	s.	
1893.....	56.1	86	26	2.38	12	0	11	9	10	....	nw.	9.5	58	s.	1909.....	59.8	86	25	5.02	4.87	10	0	12	7	11	50	sw.	9.2	54	ne.	
1894.....	62.6	92	22	3.46	4.50	9	9	9	12	52	sw.	9.1	60	ne.	1910.....	59.8	85	26	2.85	2.84	10	0	13	8	9	54	nw.	8.2	43	ne.	
1895.....	62.8	100	24	2.15	2.16	8	9	14	10	6	65	sw.	9.2	68	nw.	1911.....	59.1	83	21	3.31	1.72	11	0	12	9	9	54	nw.	9.8	48	ne.
1896.....	59.0	96	21	6.16	8.31	13	0	9	8	13	16	sw.	11.4	75	ne.	1912.....	59.2	82	25	3.20	2.43	10	0	10	9	11	47	sw.	8.8	44	ne.
1897.....	59.4	97	25	2.11	2.56	7	7	16	8	6	63	nw.	12.3	64	nw.	1913.....	58.6	96	19	3.25	4.02	8	0	16	6	8	59	sw.	9.8	51	s.
1898.....	62.6	95	25	2.95	2.95	8	8	15	8	7	60	sw.	8.6	65	ne.	1914.....	60.2	97	18	0.98	1.70	5	0	17	8	5	71	nw.	8.8	48	w.
1899.....	58.9	88	23	4.68	6.50	10	0	14	7	9	54	sw.	10.0	54	e.	1915.....	63.4	96	25	1.79	2.78	6	0	17	7	6	63	nw.	9.4	62	nw.
1900.....	62.6	99	25	2.98	3.12	8	0	15	8	8	62	nw.	8.3	65	sw.	1916.....	60.3	93	28	3.53	3.09	9	0	16	7	7	64	sw.	9.6	48	nw.
1901.....	61.6	94	20	3.31	3.48	10	0	16	5	9	61	sw.	7.8	69	s.	1917.....	57.1	90	21	1.60	3.00	7	0	17	7	6	63	sw.	8.2	67	ne.
1902.....	61.6	95	27	4.49	3.03	12	0	12	6	12	51	ne.	7.9	40	s.	1918.....	56.8	91	23	6.87	3.96	13	0	10	8	12	48	sw.	9.6	44	s.
1903.....	61.0	95	23	1.60	3.65	5	0	19	7	4	77	sw.	7.9	60	s.																



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# CLIMATOLOGICAL DATA

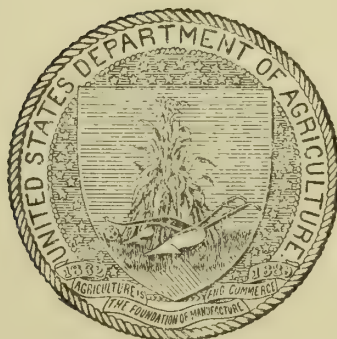
NEW ENGLAND SECTION

OCTOBER, 1918

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BY  
JOHN W. SMITH  
METEOROLOGIST

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
NOVEMBER 22, 1918



# Departure of the Mean Temperature from the Normal, October, 1918.



Shaded portions show excess (+).  
Unshaded portions show deficiency (-).  
Lines show amount of excess or deficiency.



## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

VOL. XXX. BOSTON, MASS., OCTOBER, 1918. No. 10.

## GENERAL SUMMARY.

October, for the section as a whole, was warmer than normal, and deficient in precipitation. The temperature, until the 24th of the month, varied but little from the normal, except for a brief period from the 11th to the 13th, inclusive, when it was above the normal. From the 25th until the close of the month it was much above the normal, and exceptionally warm for the season. The highest temperature generally occurred on the 29th, when at scattered stations it rose above 80°. The lowest temperature of the month was generally about the end of the second decade, when over the greater portion of the northern States it fell to between 20° and 24°, and in the southern portion of the section to near or slightly below the freezing point. The precipitation was considerably above the normal in Vermont, northern New Hampshire, and the greater portion of Maine, and below the normal elsewhere, the average deficiency in the southern portion of the section varying from 2.50 to 3.00 inches. Several inches of snow fell in northern parts of New Hampshire and Maine on the 18th or 19th.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 13 stations reporting, was 30.12 inches, which was 0.08 inch above the mean for the month, and 0.06 inch above the mean for October, 1917. The highest monthly mean was 30.13 inches, at Concord, N. H., Block Island, R. I. and New Haven, Conn.; the lowest, 30.08 inches, at Eastport, Me. The highest recorded was 30.62 inches, at Northfield, Vt. on the 19th; the lowest, 29.50 inches, at Concord, N. H. on the 13th. The monthly range for the section was 1.12 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 76 stations, was 50.9°, which was 4.0° above the mean for October, 1917. During the past 30 years the average October temperature has been higher in 10 years, the same in 1 year, and lower in 19 years than that of the present month. The highest average October temperature during this time was 54.3°, in 1913; the lowest, 44.2°, in 1888. The average temperature for the several States of the section was as follows: Maine, 47.6°; New Hampshire, 48.5°; Vermont, 48.6°; Massachusetts, 53.9°; Rhode Island, 54.6°; Connecticut, 54.1°. The average temperature for the section was 2.5° above the normal for the month. The departures from the normal for the several States were as follows: Maine, +1.3°; New Hampshire, +2.2°; Vermont, +2.4°; Massachusetts, +3.3°; Rhode Island, +2.0°; Connecticut, +3.0°. The highest monthly mean was 56.6°, at New London, Conn.; the lowest, 42.4°, at Pittsburg, N. H. The highest recorded was 82°, at Fitchburg, Mass. on the 29th; the lowest, 19°, at Van Buren, Me. on the 17th. The greatest monthly range was 58°, at Keene, N. H.; the least, 27°, at Block Island, R. I. The greatest daily range was 46°, at Voluntown, Conn. on the 24th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 13 stations reporting, was 81 per cent, which was 1 per cent above the average for October, 1917, and 3 per cent above the normal for the month.

The highest monthly average was 90 per cent, at Concord, N. H.; the lowest, 75 per cent, at Providence, R. I.

## PRECIPITATION.

The average for the section, as determined from the records of 76 stations, was 2.89 inches, which was 2.92 inches below the average for October, 1917. During the past 30 years the average October precipitation has been greater in 20 years and less in 10 years than that of the present month. The greatest average October precipitation during this time was 7.34 inches, in 1890; the least, 1.10 inches, in 1897. The average precipitation for the several States of the section was as follows: Maine, 4.41 inches; New Hampshire, 3.50; Vermont, 4.82; Massachusetts, 1.27; Rhode Island, 0.96; Connecticut, 1.30. The average precipitation for the section was 0.75 inch below the normal for the month. The departures from the normal for the several States were as follows: Maine, +0.78 inches; New Hampshire, -0.44; Vermont, +2.03; Massachusetts, -2.49; Rhode Island, -3.07; Connecticut, -2.62. The greatest monthly amount was 8.74 inches, at Pittsburg, N. H.; the least, 0.65 inch, at Providence, R. I. The greatest amount in 24 hours was 2.80 inches, at Bar Harbor, Me. on the 6th. The average number of days with .01 inch or more of precipitation was 10, which was 3 less than the average for October, 1917, and 1 more than the normal number for the month.

## WIND.

The prevailing direction of the wind was from the south, the normal direction for the month is from the northwest, as determined from the records of the past 30 years. The greatest monthly wind movement at any station was 12,060 miles, at Blue Hill Observatory, Hyde Park, Mass.; the least, 2,529 miles, at Concord, N. H. The average hourly wind movement was 9.9 miles, which was 1.5 miles below the average for October, 1917, and 0.6 mile below the normal for the month. The highest recorded velocity was 48 miles per hour from the south, at Burlington, Vt. on the 28th. This is much below the usual maximum velocity for the month.

## SUNSHINE AND CLOUDINESS.

The average number of clear days was 13; partly cloudy, 7; cloudy, 11, which compares with the normal of 12 clear, 8 partly cloudy, and 11 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 48, which was 1 per cent below the average for October, 1917, and 9 per cent below the normal for the month. The greatest percentage of possible sunshine at any station was 62, at Hartford, Conn.; the least, 24, at Northfield, Vt. During the past 24 years the percentage of possible sunshine in October has been greater in 19 years, the same in 1 year, and less in 4 years than that of the present month. The greatest percentage in any October during this time was 69, in 1905; the least, 29, in 1913.

## DATES OF MISCELLANEOUS PHENOMENA.

*Halos, Lunar.*—New Haven, Conn., 25.

*Halos, Solar.*—Blue Hill, Mass., 25; Boston, Mass., 9, 20, 24, 25, 29, 30; Somerset, Mass., Block Island, R. I., 11; New Haven, Conn., 11, 25, 29.

*Auroras.*—Eastport, Me., 1, 8, 19, 23; North Bridgton, Me., Newton, N. H., Concord, Fall River, Hingham, Mass., Kingston, R. I., Falls Village, Hartford, Conn., 8th; Burlington, Vt., 1st, 8th; Enosburg Falls, Vt., 23d; Blue Hill, Boston, Mass., 8th, 9th.

*Thunderstorms* (dates and number of observers reporting on each): Maine—6th, 1; 13th, 4; 29th, 2. New Hampshire—2d, 1; 6th, 5; 18th, 1; 30th, 2. Vermont—5th, 3; 6th, 4; 13th, 2; 14th, 2; 18th, 1; 19th, 1; 23d, 1; 29th, 1; 30th, 4. Massachusetts—1st, 1; 2d, 3; 3d, 6; 5th, 1; 6th, 16. Rhode Island—3d, 1; 6th, 4. Connecticut—3d, 2; 4th, 1; 6th, 9; 7th, 1; 30th, 1.



## Climatological Data for October, 1918.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				No. of days.				Observer.			
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.		Cloudy.	Prevailing direction of wind.	
Maine.																					
Bar Harbor	Hancock	20	32	50.2	+2.2	72	29	29	19	32	6.78	+2.71	2.80	0	12	19	4	8	w.	Mount Desert Nurseries.	
Cornish	York	778	63	49.0	+1.5	81	29	24	20	40	2.83	-1.07	0.78	0	12	15	7	9	sw.	L. W. Pease.	
Eastport	Washington	53	46	48.2	+1.6	66	11	33	19	22	3.33	-0.52	0.86	0	13	8	4	19	nw.	U. S. Weather Bureau.	
Farmington	Franklin	450	21	46.9	-0.7	72	29	23	20	39	5.57	+2.36	1.39	2.0	13	10	9	12	nw.	State Normal School.	
Gardiner	Kennebec	163	26	49.2	0.0	71	11	28	19	36	3.99	+0.02	1.00	0	13	14	0	17	se.	Samuel D. Soule.	
Greenville	Piscataquis	1,140	14	45.4		68	29	23	20	34	5.38	+2.02	1.67	2.5	16	9	6	16	.....	U. S. Weather Bureau.	
Houlton	Aroostook	362	16	45.4		68	14	23	24	32	4.38	+1.54	1.55	0	6	15	3	13	w.	Bangor & Aroostook R.R.	
Lewiston	Androscoggin	185	35	49.0	+1.8	73	29	20	8	33	3.29	-0.39	1.10	T	12	12	10	9	s.	Union Water Power Co.	
Madison	Somerset	257	15	45.9		71	30	24	20	36	5.00	+0.77	0.96	2.0	11	19	2	10	nw.	Great Northern Paper Co.	
Millinocket	Penobscot	386	15	45.8		68	13	21	23	38	6.03	+2.32	2.06	0	13	12	3	16	nw.	Great Northern Paper Co.	
North Bridgton	Cumberland	450	25	49.2	+0.1	78	28	28	19	38	4.41	+0.84	0.91	T	14	12	3	16	s.	C. L. Chadbourn.	
Orono	Penobscot	129	49	48.2	+2.0	69	6†	25	19	36	5.47	+1.45	1.90	0	11	18	9	4	nw.	Maine State College.	
Patten	do	550	16	43.6 <sup>d</sup>		70 <sup>d</sup>	5†	21 <sup>d</sup>	14	45 <sup>d</sup>	2.85	-1.26	1.00	0.5	6	14 <sup>d</sup>	1 <sup>d</sup>	1 <sup>d</sup>	ne.	Bangor & Aroostook R.R.	
Portland	Cumberland	99	47	50.2	+1.1	76	11	34	8	30	2.39	-1.27	0.79	0	15	11	5	15	s.	U. S. Weather Bureau.	
Presque Isle	Aroostook	1,000	9																	E. M. Libby.	
Rumford	Oxford	505	25	48.2	+1.5	73	29	28	20	31	5.30	+2.20	1.35	0.8	14	15	6	10	nw.	Charles A. Mixer.	
Van Buren	Aroostook	510	14	43.2		66	29	19	17	35	3.40	-0.09	1.32	0.5	7					Rev. J. M. Thomas.	
Winslow	Kennebec	90	23	51.1	+3.4	80	1	26	19	43	4.84	+1.70	1.82	0	11	14	6	11	n.	Hollingsworth & Whitney	
New Hampshire.																					
Alstead Center	Cheshire	1,120	14	50.6	+2.3	73	29	30	4†	28	2.09	-0.99	0.50	0	14	16	6	9	sw.	Frank Dewing.	
Berlin	Coos	1,090	21	46.2		74	29	23	7	42	5.08	+2.55	1.35	0.5	14	7	6	18	n.	Brown Company.	
Bethlehem	Grafton	1,470	26	47.4	+1.2	72	29	25	23	33	6.14	+3.14	2.01	0	12	12	6	13	s.	Benjamin Tucker.	
Concord	Merrimack	350	57	50.8	+2.1	79	29	27	19†	41	1.14	-2.10	0.54	0	10	14	4	13	se.	U. S. Weather Bureau.	
Durham	Stafford	88	23	50.8	+1.7	78	29	26	23	39	0.73	-2.47	0.23	0	7	14	5	12	nw.	N. H. Agr. College.	
Franklin	Merrimack	440	19	49.2	+1.4	77	29	22	23	43	2.71	-0.36	0.83	0	13	11	4	16	se.	Gilbert Hodges.	
Glencoff	Grafton	1,650	5	46.2		72	30	26	23	33	5.78			2.20	0	10	15	5	11	nw.	State Sanatorium.
Grafton	do	863	32																	P. R. Kimball.	
Hanover	do	603	84	50.1	+3.7	76	29	24	20†	42	2.92	-0.22	0.64	0	15	9	8	14	se.	Dartmouth College.	
Keene	Cheshire	506	33	51.5	+3.9	81	29	23	19†	45	1.52	-1.38	0.50	0	10	13	8	10	se.	Samuel Wadsworth.	
Newton	Rockingham	126	30	50.2	+1.8	78	29	24	8†	38	1.24	-2.36	0.49	0	8	14	9	9	sw.	W. C. Gale.	
Pittsburg	Coos	1575		42.4		67	29	23	8†	36	8.74		1.91	0	11	9	6	16	ne.	Conn. Valley Lumber Co.	
Plymouth	Grafton	500	30	48.3	+3.6	74	29	21	20	39	3.28	+0.05	1.09	0	12	16	4	11	w.	Mrs. Hattie G. Trow.	
Vermont.																					
Bloomfield	Essex		11	47.5		72	29	22	23	38	8.20	+5.43	1.96	0	13	8	7	16	s.	Lyman Falls Power Co.	
Burlington	Chittenden	404	11	49.0	+2.1	68	27	28	8	31	6.75	+3.59	2.20	0	13	6	8	17	s.	U. S. Weather Bureau.	
Cavendish	Windsor	910	15	47.8		74	12	20	20	40	2.20	-1.00	0.46	0	21	13	8	10	.....	Colonial Power Co.	
Chelsea	Orange	840	23	46.7	+1.6	74	29	20	8†	42	4.40	+1.81	0.97	0	11	10	5	16	n.	W. F. Dewey.	
Cornwall	Addison	517	25	51.2	+1.5	75	11	27	8	37	5.11	+2.53	2.25	0	10	13	3	15	n.	C. H. Lane.	
Enosburg Falls	Franklin	601	27	48.8	+4.6	74	28	24	8†	39	8.33	+5.23	2.03	0	13	14	7	10	sw.	J. W. Pomeroy.	
Hyde Park	Lamoille	576	6	47.6		73	29	21	8†	45	6.59		1.30	0	13	8	7	16	w.	A. V. Wiswell.	
Northfield	Washington	876	32	47.6	+4.0	74	29	23	19	41	5.21	+2.73	1.70	0	15	3	7	21	s.	U. S. Weather Bureau.	
Rutland	Rutland	562	2	50.2 <sup>a</sup>		75	28	25 <sup>a</sup>	19†	37 <sup>b</sup>	3.68		0.90	0	14	14	2	15	se.	George H. Ross.	
Somerset	Windham	2,096	7	44.4		68	11†	20	7†	38	4.27		1.33	0	11	16	11	3	nw.	Power Construction Co.	
St. Johnsbury	Caledonia	711	25	49.5	+3.1	73	29	24	20	42	7.60	+5.93	2.78	0	14	10	6	15	n.	Fairbanks Museum.	
Vernon	Windham	310	3	51.0	+2.9	75	11†	26	19	42	1.15	-2.41	0.42	0	8	12	10	9	.....	Conn. River Power Co.	
Wells	Rutland	750	27	49.6	+1.6	70	29†	28	8†	27	3.19	+0.23	0.78	0	11	10	8	13	s.	E. R. Pember.	
Woodstock	Windsor	700	26	48.0	+2.2	71	29	20	20	39	2.52	-0.79	0.76	0	8	9	7	15	.....	John S. Eaton.	
Massachusetts.																					
Amherst	Hampshire	222	29	53.0	+4.0	78	29	28	23	42	1.32	-2.18	0.35	0	10	12	7	12	sw.	Mass. Agr. College.	
Blue Hill	Norfolk	640	34	52.7	+3.2	74	30	34	19	24	1.15	-3.01	0.34	0	9	10	9	12	s.	Blue Hill Observatory.	
Boston	Suffolk	124	48	56.2	+3.9	79	29	38	19	29	0.99	-2.87	0.38	0	7	8	12	11	sw.	U. S. Weather Bureau.	
Chestnut Hill	do	124	38	53.4	+2.7	78	29	25	23†	43	1.25	-2.69	0.58	0	9	22	0	9	.....	Met. Water Board.	
Clinton	Worcester	370	22	53.4		77	29	31	8†	35	1.26	-2.83	0.40	0	7				.....	Do.	
Concord	Middlesex	139	28	52.2	+2.6	01	29	25	24	39	0.96	-2.26	0.42	0	6	12	11	8	s.	Fred A. Tower.	
Fall River	Bristol	200	52	55.4	+2.2	73	11	37	8	22	1.08	-2.98	0.33	0	7	8	22	1	se.	C. V. S. Remington.	
Fitchburg	Worcester	550	35	54.2	+5.1	82	29	30	8†	34	1.03	-2.76	0.38	0	9	16	5	10	sw.	Dr. A. P. Mason.	
Framingham	Middlesex	160	33	55.1	+4.9	79	29	29	23	36	1.04	-2.77	0.48	0	8				.....	Met. Water Board.	
Lawrence	Essex	51	34	54.0	+4.0	79	29	31	24	35	1.27	-2.18	0.36	0	11	11	16	4	s.	Essex Company.	
Lowell	Middlesex	100	33	54.0	+4.1	77	29	30	19†	34	0.89	-2.60	0.27	0	8				.....	Props. Locks & Canals.	
Nantucket	Nantucket	47	32	54.9	+0.4	70	3	40	20	20	2.12	-1.27	0.82	0	11	13	6	12	sw.	U. S. Weather Bureau.	
New Bedford	Bristol	88	106																.....	City Engineer.	
Plymouth	Plymouth	50	33																.....	Miss L. B. Knapp.	
Provincetown	Barnstable	40	31	53.2 <sup>b</sup>	+0.6	71	11	26 <sup>b</sup>	29	40	0.94	-2.97	0.20	0	6	9	13	9	sw.	Gideon Bowley.	
Rockport	Essex	25	16	53.7		76	11	37	23	27	1.16		0.33	0	9	16	5	10	sw.	U. S. C. G. Station	
Rutland	Worcester	1,160	16	53.0		78	29	31	14	35	1.83		0.63	0	7	14	14	3	sw.	State Sanatorium.	
Springfield	Hampden	199	8	55.7	+4.9	79	29	31	19†	36	0.68	-3.42	0.35	0	6	9	10	12	nw.	U. S. Armory.	
Turners Falls	Franklin	200	32																.....	Turners Falls Co.	
Westboro	Worcester	298	44	55.2	+4.0	76	27†	31	23†	29	1.19	-2.56	0.50	0	8	12	16	3	w.	Miss E. W. Newcomb.	
Williamstown	Berkshire	711	37	51.4	+3.3	74	29	27	19	32	2.75	-0.44	0.96	0	11	11	7	13	nw.	Williams College.	
Worcester	Worcester	518	26																.....	G. W. Swan.	
Rhode Island.																					
Block Island	Newport	26	383																		



Daily Precipitation for October, 1918.

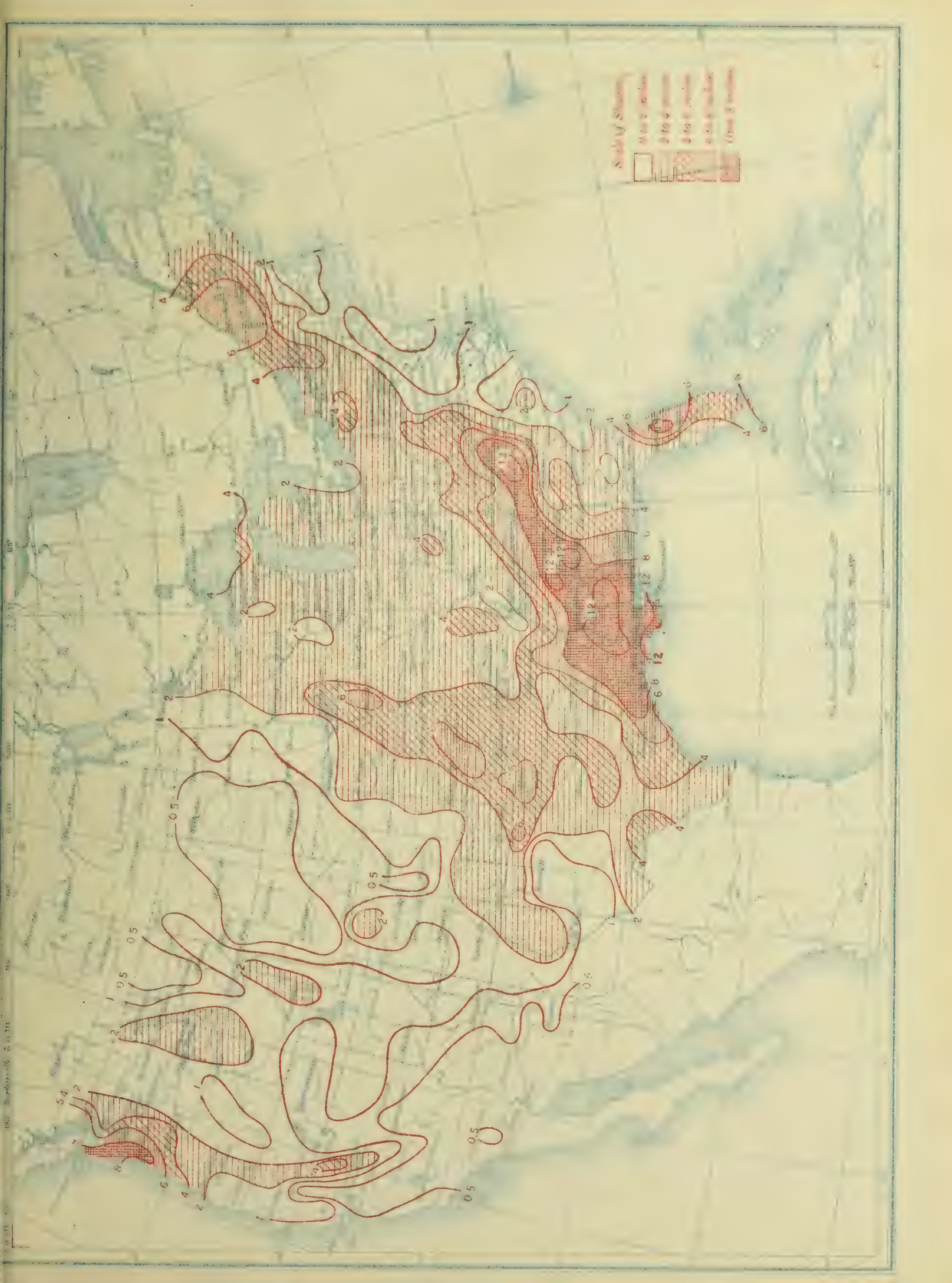
Stations.	Watersheds.	Day of month.																															Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Maine.																																		
Ashland	St. John																																	
Bar Harbor	Coast	.15		.26	.15	.06	2.80							.05					1.10			1.00					.15	.18			.16	.72	6.78	
Corinth	Saco	.11		.07		.12	.78						.06	.02					.54		.40						.20	.08			.37	.08	2.82	
Eastport***	Coast	.21	.05	.43		.19	.71				.01		T.	T.					.03	.24		.48					.17	.03			.07	.71	3.33	
Eustis	Kennebec		.11	.03		.27	1.64	.19				.02	T.	T.	T.	T.			T.	1.09		.28	T.				.57	.04	T.		.43	.72	6.39	
Farmington	do	.06	.01	.05		.56	1.09						T.	T.	.30				1.39		.10	.26					.40	.06	T.		.94	.37	5.59	
Gardiner	do	.10		.16	T.	.23	.86	.01						.10	.04				1.00			.38					.12	.04	T.		.70	.25	3.99	
Greenville**	Penobscot	.10	.02	.08		.37	1.67	.06				.01		.01					.05	.53		.19	.16				.53	.04	T.	.01	1.06	.59	5.38	
Houlton	St. John			.05		.15	.55															.72					.30			.73	.05	4.38		
Lewiston	Androscooggin	.05		.04		.31	.42						.06	.05					1.10		.21	.10					.20	T.		.61	.14	3.29		
Madison	Kennebec		.01			.87	.82							.17					.39		.45						* .38			.42	.52	5.06		
Millinocket	Penobscot			.08		.13	2.06					.02		.04					.38		.81						.19	.37	.03	.57	1.31	.03	6.03	
North Bridgton	Saco	.12	T.	.03		.33	.76						.02	.19					.91		.07	.25					.32	.05	T.	.01	.81	.21	4.11	
Orono	Penobscot	.13		.47		.40	1.90	.23											.80			.57					.28	.04			.39	.20	5.47	
Patten	do					.20	1.00												.05								.20		1.00	.40			2.85	
Portland***	Coast	.01		.11		.18	.66						.02	.31					.25	.32		.21	.01				.15	.01	.02		.01	.12	2.09	
Presque Isle	St. John																																	
Rumford	Androscooggin	.05	.03	.04		1.04	.81						T.	.15					.50	.65		.26	.02				T.	.39	.01	T.	1.30	.65	5.30	
Van Buren	St. John		T.				.32				.52			.03								.39					.28	T.			1.32	.54	3.40	
Winslow	Kennebec	.03			.20	* 1.82								.04					1.06		.45						.17		T.	.18	.54	.35	4.84	
New Hampshire.																																		
Alstead Center	Connecticut	.18		.08		.03	.50						.15	.22					.08		.09	.29					.13	.05	T.	.01	.15	.13	2.09	
Berlin	Androscooggin		.21	.10	.01	1.35	.62						T.	.08	T.				.73	T.		.35	.02			T.	.11	.22	T.		.57	.62	.09	5.08
Bethlehem	Connecticut	.01	.08	.51		.69	2.01						T.	.02	.04				.74			.11					.64	T.			.93	.36	6.14	
Concord***	Merrimack		T.	.06		.05	.52						.03	.15					.03		.05	.02					.13	T.	T.		T.	.10	1.14	
Durham	do			.05		.07							.04		.06						.20						T.	.08				.23	0.73	
Franklin	do	.11		.02	.03	.08	.83						.20	.59					.09		.19						.41	.18	.01		.47	.03	2.71	
Glencoff	Connecticut		.21	.21		* 2.20								.31					T.		*	.86					T.	T.	.89		T.	1.07	.03	5.78
Grafton	Merrimack												.03	.27							.22						.64	.03	T.	.01	.44	.32	2.92	
Hanover	Connecticut	.11	.02	.10		.23	.33						.12	.10					T.		.07	.30					.05	.02	T.		.03	.15	1.52	
Keene	do	T.	.18	.00		T.	.50						.02	.08							.18						.05		T.			.27	1.24	
Newton	Merrimack		.13			T.	.49												.02								.17	.26			1.71	1.41	8.74	
Pittsburg (a)	Connecticut		.50			.91	.88								.32	.24			.83			.51					.65				2.00	1.00	8.33	
Pittsburg (b)	do		.30	.38		.60	2.17	.20			.10			.10					.05			.78					.46	.10	T.		.81	.28	3.28	
Plymouth.	Merrimack	.07		.18	T.	.13	.75						.03		.03					.25		T.	.16											
Vermont.																																		
Bloomfield	Connecticut	.03		.14		.75	1.96	.09						.06	.30	T.			.78		.26	.51	.04				.73			.02	1.65	1.20	8.20	
Burlington***	Champlain		.09	T.		1.49	1.36						T.	.06	T.	T.			.40	.06		.26	.01				.39	.38			1.01	.87	.37	6.75
Cavendish	Connecticut	.35	.18	.06	.01	.03	.02	.36	.01					.05	.07	.03					.01	.18	.22				.01		.05	.01	.01	.07	.46	2.20
Chelsea	do		.40			.30	.97							.08					.38		.35	.06							.37	.04		.80	.65	4.40
Cornwall	Champlain	T.	.10			.40	1.40	T.						.08					.20	.18							T.	.40			1.10	1.50	.75	5.11
Enosburg Falls.	do	T.	.18	.56		.87	2.03	T.				T.	.06						.62		.34	.08					.16	.63		T.	.08	1.87	.85	8.33
Hyde Park	do	.01		.11		.90	1.77	.01					.22	.03					.64		.34	.36					.36				1.30	1.14	6.59	
Northfield***	Champlain		.18	.15		.86	1.02						T.	.07	.01				.47	.15	.26	.08			1.04		.14			.04	1.43	.31	5.21	
Rutland	do		.03	.20	.08	.03	.47	.38						.01	.32				.17			.33					.33	.14		.02	.30	.90	3.68	
Somerset	Connecticut	.11		.41		.73	.10						.22	.22							1.33						.02	.10			.45	.58	4.27	
St. Johnsbury	do	T.	.03	.36		.64	1.76	.06					.08	.04					.77		.06	.37					.64	T.		.01	1.71	1.07	7.10	
Vernon	do		.08			.42	.02						.15	.03							.42						.02				.01		1.15	
Wells	Champlain	.10		.15		.05	.78						.07	.14					.05		.17						.42	.06		T.	.59	.68	3.19	
Woodstock	Connecticut	.11		.12		.11	.49								T.				.25		.35						.33				.76		2.52	
Massachusetts.																																		
Amherst	Connecticut		.02	.22		.06	.29					.22								.20								.03			.01	.17	1.32	
Ashland	Merrimack			.09		.18							.13								.19				.01						.44	1.04		
Bakers Bridge††	do	.12				.12							.05																		.66	0.95		
Bedford	do	.10	T.	.22		T.	.11						.07									.14									.52	1.16		
Blue Hill	Coast	.22		.06	T.	.01	.22						.18								.01	.10					T.		.01	T.	.34	1.15		
Boston***	do	.11	T.	.02		T.	.25						.13	T.	T.					T.		.04	.06									.38	0.99	
Brockton	Coast	.22		.02		.16				.02			T.	.08								.08						.02	.04	T.	.03	.02	.27	0.96
Chestnut Hill	do		.08			*	.20						.15			.04					.16						.04				.25	.33	1.25	
Clinton	Merrimack			.40		.22							.05	T.							.14						.02				.37	1.26		
Concord	do	.09		.19		T.	.11						.07		T.						T.	.08					T.			.01		.42	0.96	
Fall River	Co																																	



## Daily Temperatures for October, 1918.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean		
Maine.																																		
Bar Harbor.....	Maximum	68	55	61	61	56	54	62	61	60	63	71	69	60	62	66	55	48	46	54	66	57	53	57	56	55	53	53	60	72	66	62	58.7	
Bar Harbor.....	Minimum	46	36	51	32	47	42	35	32	44	48	39	42	51	48	37	46	30	32	29	36	47	37	33	37	35	47	49	48	52	56	53	41.6	
Eastport.....	Maximum	53	55	56	56	54	40	50	57	56	63	66	56	56	58	50	51	45	46	51	51	54	49	53	54	51	53	50	56	58	56	61	54.0	
Eastport.....	Minimum	41	41	47	36	47	39	39	38	42	41	44	44	51	46	41	39	34	37	33	37	43	38	35	41	44	48	49	51	52	50	42.5		
Farmington.....	Maximum	59	55	62	60	50	46	51	64	62	66	69	59	67	60	41	36	48	45	52	51	54	51	59	59	54	52	55	61	73	64	57.5		
Farmington.....	Minimum	35	27	44	33	40	37	34	25	27	28	33	33	35	41	36	35	28	32	24	23	45	51	59	59	54	52	55	61	50	55	53	36.3	
Gardiner.....	Maximum	60	56	66	60	58	50	52	65	63	69	72	63	66	61	51	56	51	46	56	52	57	53	61	55	56	56	53	59	60	62	64	58.9	
Gardiner.....	Minimum	30	31	51	36	44	39	37	29	31	39	36	40	52	41	37	35	34	32	28	30	40	35	29	30	32	40	51	48	58	56	53	39.4	
Greenville.....	Maximum	52	50	54	56	50	39	44	61	63	62	62	56	63	55	43	44	46	43	49	48	48	48	55	60	48	53	52	61	68	62	64	53.5	
Greenville.....	Minimum	34	26	43	30	39	34	33	30	29	32	35	34	48	40	34	34	34	32	32	23	41	35	33	36	35	45	49	43	54	53	50	37.3	
Millinocket.....	Maximum	54	51	56	56	50	50	49	64	65	65	63	59	69	66	54	50	48	50	53	53	53	49	58	59	53	52	53	60	65	57	62	55.7	
Millinocket.....	Minimum	35	26	46	29	39	34	38	27	27	29	32	31	45	42	36	36	30	33	26	22	44	32	21	24	31	45	46	42	55	55	53	35.9	
Orono.....	Maximum	56	57	60	59	51	69	48	61	63	65	69	69	66	64	56	54	52	47	53	54	56	52	55	64	54	55	52	60	65	66	62	58.7	
Orono.....	Minimum	34	33	31	34	44	36	35	26	31	39	36	36	45	42	37	38	31	32	25	30	29	36	28	28	37	46	43	48	54	57	55	37.6	
Portland.....	Maximum	57	53	65	62	57	50	53	57	58	67	76	57	68	56	52	55	50	48	53	53	57	54	59	56	51	56	53	58	65	61	62	57.5	
Portland.....	Minimum	44	43	36	30	49	44	39	34	38	40	46	50	53	40	34	41	43	36	37	37	43	40	36	34	40	50	49	47	56	52	52	43.0	
Presque Isle.....	Maximum	51	55	60	58	50	44	52	60	62	64	68	59	64	52	48	52	50	47	51	49	50	50	58	58	54	52	56	62	78	65	65	56.2	
Presque Isle.....	Minimum	38	32	43	40	45	40	37	32	32	35	37	42	49	42	38	36	35	36	30	28	42	40	33	39	35	48	52	54	53	56	50	40.2	
Van Buren.....	Maximum	52	56	56	55	45	38	50	58	64	65	64	54	58	45	42	42	44	40	45	47	47	55	56	54	54	52	58	66	64	63	52.8		
Van Buren.....	Minimum	25	45	45	35	35	30	29	24	31	33	29	27	45	34	30	29	14	26	20	20	34	30	21	27	34	44	42	44	55	53	52	33.7	
New Hampshire.																																		
Alstead Center.....	Maximum	55	58	62	57	61	65	54	58	61	62	68	63	65	56	53	56	58	52	50	50	54	50	54	59	60	59	67	63	73	64	64	59.2	
Alstead Center.....	Minimum	35	32	51	39	43	52	33	31	36	41	40	50	34	48	31	37	37	38	30	33	41	35	30	22	43	52	52	51	65	59	53	41.9	
Bethlehem.....	Maximum	56	55	59	55	59	52	49	59	64	62	68	69	64	56	46	51	51	46	48	48	48	53	46	52	60	62	57	59	63	72	69	66	56.5
Bethlehem.....	Minimum	29	32	43	30	43	45	32	26	33	36	41	42	46	36	33	20	33	26	30	33	34	25	29	46	50	52	51	59	57	50	39.3		
Concord.....	Maximum	51	64	66	63	59	59	57	64	65	67	76	61	70	56	52	61	58	52	58	56	56	56	62	62	60	60	60	60	60	60	60	59.3	
Concord.....	Minimum	34	34	48	37	42	42	35	29	30	32	35	42	46	42	32	32	36	37	27	27	41	32	27	27	42	52	54	54	64	65	51	39.6	
Franklin.....	Maximum	60	67	68	62	52	53	53	65	66	62	76	62	63	59	52	62	58	52	60	55	57	56	62	61	60	58	58	62	77	68	72	61.9	
Franklin.....	Minimum	32	31	40	30	35	46	37	24	24	32	33	38	46	39	35	27	32	40	24	24	42	57	56	62	61	60	58	58	62	77	68	72	61.9
Hanover.....	Maximum	58	63	65	62	51	47	54	67	68	68	74	60	64	56	51	59	53	50	57	52	52	54	60	63	60	64	63	76	70	98	61.0		
Hanover.....	Minimum	31	31	47	29	41	51	38	25	28	31	36	41	52	41	37	32	36	40	25	24	41	54	60	63	60	64	67	61	57	55	39.2		
Keene.....	Maximum	62	65	66	65	66	73	65	67	68	69	75	60	70	59	55	63	62	57	59	56	57	58	63	68	65	62	75	67	81	72	78	65.1	
Keene.....	Minimum	34	30	52	24	37	57	37	25	27	29	35	39	52	37	28	30	31	42	23	23	42	25	28	23	40	55	55	40	52	62	52	37.9	
Pittsburg.....	Maximum	45	47	51	52	54	49	45	44	59	61	60	53	61	57	43	39	43	44	42	46	49	42	43	51	57	54	51	67	67	65	56	51.4	
Pittsburg.....	Minimum	32	32	37	28	29	34	30	23	23	36	33	55	59	38	31	30	33	33	25	25	35	42	43	51	57	54	51	67	67	65	43	40	33.4
Plymouth.....	Maximum	55	60	66	60	60	52	49	54	60	61	72	60	66	55	51	57	54	52	53	54	54	52	56	57	57	58	60	74	70	67	58.5		
Plymouth.....	Minimum	39	29	50	34	38	45	62	25	28	30	33	39	50	43	38	30	40	25	21	43	39	24	23	35	47	52	52	56	60	56	38.1		
Vermont.																																		
Burlington.....	Maximum	55	60	59	59	55	47	46	55	61	66	67	61	61	51	48	51	52	44	52	53	53	48	53	61	61	60	68	68	68	61	69	57.0	
Burlington.....	Minimum	33	41	46	32	46	46	31	28	46	40	41	46	51	40	37	38	40	35	30	39	41	32	29	30	51	55	50	58	58	58	46	41.1	
Enosburg Falls.....	Maximum	55	53	57	62	53	55	53	63	63	71	68	67	65	61	56	47	54	53	47	54	51	51	48	55	65	64	69	74	68	59	58	59.1	
Enosburg Falls.....	Minimum	28	30	44	29	46	38	33	24	32	32	29	36	52	41	31	36	40	36	24	28	41	27	25	26	44	55	55	62	55	55	50	38.5	
Northfield.....	Maximum	55	51	58	59	54	61	55	64	63	65	61	62	64	50	46	54	55	46	54	55	66	49	55	60	53	50	63	66	74	68	62	58.5	
Northfield.....	Minimum	28	30	40	29	47	34	24	23	34	30	35	39	48	38	30	33	34	28	23	28	35	37	23	24	44	53	54	53	61	57	41	36.5	
St. Johnsbury.....	Maximum	59	56	59	63	61	56	52	67	68	69	68	66	62	50																			







## Daily Precipitation for October, 1918—Continued from page 77.

Stations.	Watersheds.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
<i>Rhode Island.</i>																																	
Block Island ***	Coast	.12		.04			.09						.08	.01							.03	.12								.05	.26	0.86	
Bristol	do	.30					.05						*	.05							.06	.17								.45	.01	1.10	
Greene	do	.25					.13																								.55		
Hope Valley	do						.14						.05								.23							.03	.19	.45	1.42		
Kingston	do	.33											.06								.02							.01		.34	0.63		
Pawtucket	do	.19					.01	T.					.06		T.		T.		T.		.04	.03							T.	.01	.24	0.65	
Providence**	do	.20		T.			.09	T.					.04																				
<i>Connecticut.</i>																																	
Bridgeport	Coast	.13					.55	.02					T.								.13	.10								.07	.53	1.47	
Canton	Connecticut		.22				.20						.10		T.						.10							T.		.04	.11	0.77	
Colchester	Coast	.25					.22	.05					T.	.11					T.			.14								.75	.33	1.52	
Cream Hill	Housatonic		.57			T.	.25						.25		.05						.30							T.				1.78	
Danielson	Coast						.20						.20								.50									.60		1.50	
East Hartland		.45					.22						.15	.08							.16											1.27	
Falls Village	Housatonic	.06	.20	.28			.22						.16	.20	T.						.30									.15	.11	1.68	
Hartford**	Connecticut	.05	T.	.19			.15	T.					.08		.05						.09								T.	.02	.24	0.82	
Lake Konomoc†	Coast	.32					.41	T.					.03		.02				T.		.13	.01			.04				.01	T.	.03	.48	1.20
New Haven**	do	.13	T.	T.			.41	T.					.12								.15						.32				.39	1.44	
New London	do						.46						.03								.17									.02	.53	1.19	
N. Grosvenor Dale	do	.17		.07			.14	*					.05								*	.22						.06			.54	1.44	
Norwalk	do	.18					.50	.05					T.	.05							.10									.05	.20	1.00	
Southington	do	T.		.05			.50	.05					T.	.05							.10												
Storrs	Coast			.62			.13	.50					.10								.08									.23	1.58		
Torrington	Housatonic						.13	.50					.09								.08									.04	.02	.48	1.18
Voluntown	Coast	.34					.13						.01																		.90		1.94
Waterbury	Housatonic	.05	.02	.07			.79		T.												.10												

## Special River Rainfall Stations

Maine.																																	
Brownville	Saco			.09			.85	.80							.47				.84	.09						.30	.90	.32		.35	.91	5.92	
Mattawamkeag	Penobscot		T.	.20			.95	1.50											.15	T.		.95					.12	.35			.15	.85	5.22
New Hampshire.																																	
Franklin Junction	Merrimac			.10	T.			.90							.20				.08		.15												
Lancaster	Connecticut	.08		.08			1.62	.22						.25					.02		.21					.18							
Manchester	Merrimac	.03		.02			.20	.22						.07	.11	T.			.02		.12							.06	T.		.10	.45	2.48
Sewall's Falls ††	do	.11		.04			.61						.07	.18					.03		.13								.20		.08	1.45	
West Stewartstown	Connecticut	.03	.20		.02		2.00	.92					.06	T.	.02				.86		.50	.02				.26	.21			1.60	1.32	8.02	
Vermont.																																	
Bellow's Falls	Connecticut	.14		.09			.35	T.					.13	.22					.74		.30					.05	.16			.08	.22	1.74	
Wells River	do		.40	.60	.38		.70	.90					.20						.24		.34					.48				.36	.40	5.50	
White River Junction	do	.12		.02	.06	.03	.42	.07					.02	.13	T.					.24		.15				.30	.25			.05	.57	2.43	
Massachusetts.																																	
Holyoke	Connecticut	.02		.52			.17	.01						.16							.17							T.		T.	.17	1.22	

## Daily Evaporation (inches) and Wind Movement (miles).

Gardiner, Me.	Evaporation	.09	.03	.04	.09	.02	.04	.12	.06	.08	.07	.09	.03	.06	.08	.11	.10	.03	.01	.05	.04	.09	.12	.06	.05	.03	.00	.01	.01	.00	.02	.00	1.63
Dorchester Center, Mass.	Wind movement	50	50	50	90	30	120	180	50	40	20	50	30	41	60	100	49	40	131	30	100	160	90	30	20	55	20	40	30	65	70	91	1.95
	Evaporation																																
	Wind movement																																

|| Observations taken at 6 p. m.

||| Observations taken at 7 a. m.

See temperature and precipitation data in Climatological Tables.

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

T. Precipitation is less than 0.01 inch rain or melted snow.

\* Precipitation indicated in that of following day.

†† Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.; Sewall's Falls, Concord, N. H.

## Comparative Data for New England for October.

Year	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.									
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	
1888....	44.2	74	8	5.39		14	0	8	8	15		nw.	10.5	52	e.	1904....	45.4	81	11	2.25	2.40	8	T.	14	7	10	54	nw.	10.0	83	s.	
1889....	46.1	80	6	4.53		12	0	8	9	14		ne.	11.0	78	ne.	1905....	49.3	85	10	1.68	1.90	5	0	18	7	6	69	w.	8.7	60	w.	
1890....	47.7	81	12	7.31		16	0	6	10	15		nw.	10.4	78	ne.	1906....	50.1	80	15	4.30	5.19	8	T.	11	12	48	ne.	9.7	60	ne.		
1891....	48.1	91	10	3.82		10	0	9	10	12		nw.	11.5	72	ne.	1907....	45.3	78	10	4.66	3.22	8	0	15	7	9	58	nw.	10.1	66	s.	
1892....	44.6	81	20	1.59		8	0	12	10	9		sw.	10.0	47	nw.	1908....	52.1	93	11	2.94	3.54	7	0	17	5	9	55	nw.	9.1	56	n.	
1893....	51.6	88	11	1.01		7	0	12	11	7		nw.	9.9	63	se.	1909....	48.6	92	13	1.60	1.65	8	0	12	10	9	53	nw.	9.6	50	nw.	
1894....	52.2	80	23	4.96	3.70	13	0	10	8	13		sw.	12.0	81	e.	1910....	50.9	89	10	1.65	3.86	8	0	15	7	9	51	nw.	11.7	54	sw.	
1895....	45.2	77	9	5.03	5.92	8	T.	12	11	8		sw.	12.0	61	e.	1911....	48.6	78	15	4.04	6.64	11	0	13	6	12	46	nw.	9.6	58	ne.	
1896....	46.6	78	12	3.58	3.00	13	0	8	7	16		ne.	12.6	78	ne.	1912....	51.9	89	19	2.91	4.88	8	0	17	6	8	57	sw.	10.6	60	ne.	
1897....	50.1	91	12	1.10	1.75	4	0	18	7	6		nw.	11.5	60	ne.	1913....	51.3	87	20	6.69	3.61	13	0	17	8	18	29	n.	11.3	65	s.	
1898....	51.1	91	18	6.53	3.80	11	0	11	8	12		nw.	10.4	60	e.	1914....	52.6	87	8	2.21	3.27	5	T.	14	6	9	54	sw.	9.3	53	nw.	
1899....	51.2	84	14	2.01	2.50	7	0	11	8	12		nw.	9.1	57	ne.	1915....	51.3	82	18	2.22	2.10	9	0	13	7	11	50	sw.	10.2	60	w.	
1900....	53.9	85	15	3.45	5.75	10	0	11	8	12		sw.	9.9	66	nw.	1916....	50.5	87	17	1.94	2.22	7	0	17	7	11	7	64	sw.	11.1	66	w.
1901....	49.8	82	15	2.98	1.89	6	0	17	7	7		sw.	9.8	52	w.	1917....	46.9	81	19	5.81	2.88	13	0	11	7	13	49	s.	11.4	84	s.	
1902....	49.4	79	14	4.97	3.40	9	T.	12	9	10		sw.	10.3	72	sw.	1918....	50.9	82	19	2.89	2.80	10	0	13	7	11	48	s.	9.9	48	s.	
1903....	50.1	79	10	3.68	1.83	10	T.	12	7	12		sw.	11.5	62	ne.																	



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# CLIMATOLOGICAL DATA

NEW ENGLAND SECTION

NOVEMBER, 1918

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BY  
JOHN W. SMITH  
METEOROLOGIST

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
DECEMBER 20, 1918



Departure of the Mean Temperature from the Normal, November, 1918.



Shaded portions show excess (+).  
Unshaded portions show deficiency (-).  
Lines show amount of excess or deficiency.



## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

VOL. XXX. BOSTON, MASS., NOVEMBER, 1918. No. 11.

## GENERAL SUMMARY.

As in the preceding month, moderate conditions for the season prevailed during November. The average temperature was somewhat above the normal and there were but few days with mean temperature below the normal. No marked extremes occurred in either the highest or the lowest temperatures. The highest for the month was between  $60^{\circ}$  and  $66^{\circ}$  over the greater portion of the section, and the lowest between  $15^{\circ}$  and  $20^{\circ}$ , except in some localities in the northern States, where minima between  $4^{\circ}$  and  $8^{\circ}$  occurred. The precipitation was somewhat below the normal, for the section as a whole. In Vermont, however, there was a moderate excess, and in Maine only a slight deficiency. Over the greater part of the section the monthly totals ranged between 2 and 4 inches. The snowfall was practically all confined to the northern portion of the section. In northern Vermont, New Hampshire and Maine, snow in moderate amounts fell during the last half of the month, accumulating to between 6 and 11 inches in depth in some localities. There was little or no frost in the ground, and the moderate conditions were favorable for outdoor work.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 13 stations reporting, was 30.01 inches, which was 0.04 inch below the normal for the month, and 0.04 inch below the mean for November, 1917. The highest monthly mean was 30.04 inches, at New Haven, Conn.; the lowest, 29.97 inches, at Eastport, Me. The highest recorded was 30.65 inches, at Portland, Me. on the 6th; the lowest, 29.05 inches, at Amherst, Mass. on the 18th. The monthly range for the section was 1.60 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 78 stations, was  $38.9^{\circ}$ , which was  $5.4^{\circ}$  above the mean for November, 1917. During the past 30 years the average November temperature has been higher in 10 years and lower in 20 years than that of the present month. The highest average November temperature during this time was  $42.0^{\circ}$ , in 1896; the lowest,  $32.5^{\circ}$ , in 1904. The average temperature for the several States of the section was as follows: Maine,  $35.7^{\circ}$ ; New Hampshire,  $36.3^{\circ}$ ; Vermont,  $36.3^{\circ}$ ; Massachusetts,  $41.9^{\circ}$ ; Rhode Island,  $44.1^{\circ}$ ; Connecticut,  $41.8^{\circ}$ . The average temperature for the section was  $1.8^{\circ}$  above the normal for the month. The departures from the normal for the several States were as follows: Maine,  $+1.8^{\circ}$ ; New Hampshire,  $+1.9^{\circ}$ ; Vermont,  $+2.3^{\circ}$ ; Massachusetts,  $+1.6^{\circ}$ ; Rhode Island,  $+1.4^{\circ}$ ; Connecticut,  $+1.8^{\circ}$ . The highest monthly mean was  $46.0^{\circ}$ , at Nantucket, Mass. and Block Island, R. I.; the lowest,  $28.4^{\circ}$ , at Van Buren, Me. The highest recorded was  $70^{\circ}$ , at Rutland, Vt. on the 18th; the lowest,  $-2^{\circ}$ , at Patten, Me. on the 29th. The greatest monthly range was  $63^{\circ}$ , at Pittsburg, N. H.; the least,  $37^{\circ}$ , at Block Island, R. I. The greatest daily range was  $44^{\circ}$ , at Somerset, Vt. on the 12th.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 13 stations reporting, was 76 per cent, which was 4 per cent above the average for November, 1917, and normal for the month. The highest monthly average was 87 per cent, at Concord, N. H.; the lowest, 71 per cent, at Providence, R. I., Blue Hill Observatory, Hyde Park, Mass., and Boston, Mass.

## PRECIPITATION.

The average for the section, as determined from the records of 78 stations, was 2.77 inches, which was 1.81 inches above the average for November, 1917. During the past 30 years the average November precipitation has been greater in 14 years and less in 16 years than that of the present month. The greatest average November precipitation during this time was 6.38 inches, in 1897; the least, 0.96 inch, in 1917. The average precipitation for the several States of the section was as follows: Maine, 3.36 inches; New Hampshire, 2.48; Vermont, 2.78; Massachusetts, 2.38; Rhode Island, 2.11; Connecticut, 3.02. The average precipitation for the section was 0.60 inch below the normal for the month. The departures from the normal for the several States were as follows: Maine,  $-0.03$  inch; New Hampshire,  $-0.66$ ; Vermont,  $+0.21$ ; Massachusetts,  $-1.28$ ; Rhode Island,  $-1.89$ ; Connecticut,  $-0.74$ . The greatest monthly amount was 5.25 inches, at Millinocket, Me.; the least, 1.20 inches, at Boston, Mass. The greatest amount in 24 hours was 3.41 inches, at Burlington, Vt. on the 18-19th. The average snowfall for the section was 1.2 inches, which was 3.1 inches below the average for November, 1917, and 3.5 inches below the normal for the month. During the past 30 years the greatest average November snowfall for the section was 17.5 inches, in 1898; the least, a trace, in 1890. The average snowfall for the several States was as follows: Maine, 2.3 inches; New Hampshire, 2.8; Vermont, 1.3; Massachusetts, 0.1; Rhode Island, trace; Connecticut, trace. The average number of days with .01 inch or more of precipitation was 10, which was 5 more than the average for November, 1917, and normal for the month.

## WIND.

The prevailing direction of the wind was from the northwest, which is the normal direction for the month. The greatest monthly wind movement at any station was 15,061 miles, at Block Island, R. I.; the least, 3,525 miles, at Concord, N. H. The average hourly wind movement was 11.3 miles, which was 0.1 mile greater than the average for November, 1917, and 0.3 mile below the normal for the month. The highest recorded velocity was 67 miles per hour from the east, at Eastport, Me. on the 19th. This is about the usual maximum velocity for the month.

## SUNSHINE AND CLOUDINESS.

The average number of clear days was 10; partly cloudy, 8; cloudy, 12, which is the normal number for the month. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 42, which was 15 per cent below the average for November, 1917, and normal for the month. The greatest percentage of possible sunshine at any station was 53, at New Haven, Conn.; the least, 25, at Northfield, Vt. During the past 24 years the percentage of possible sunshine in November has been greater in 14 years and less in 11 years than that of the present month. The greatest percentage of possible sunshine in any November during this time was 58, in 1903; the least, 32, in 1896.

## DATES OF MISCELLANEOUS PHENOMENA.

*Thunderstorms* (dates and number of observers reporting on each): Maine, Vermont, Massachusetts, Connecticut, 18th, 1.

*Halos, Lunar.*—Blue Hill, Mass., 8; Boston, Mass., 12, 15; Block Island, R. I., 15; Kingston, R. I., 13; Hartford, Conn., 15, 16, 19; New Haven, Conn., 15.

*Halos, Solar.*—Northfield, Vt., 28; Blue Hill, Mass., 24, 28; Boston, Mass., 15, 25, 28; Providence, R. I., 24, 25, 27, 28; Hartford, Conn., 8, 15, 16, 24, 28; New Haven, Conn., 16, 24, 28.

*Auroras.*—Cornish, Me., Concord, Mass., 10; Eastport, Me., 1, 10, 11, 29; Berlin, N. H., 1; Durham, N. H., 11; Glencliff, N. H., 15; Enosburg Falls, Vt., 1, 11, 12; Northfield, Vt., Blue Hill, Mass., 10, 11; Hartford, Conn., 10, 25.



## Climatological Data for November, 1918.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				No. of days.				Prevailing direction of wind.	Observer.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation 0.01 or more.	Clear.	Partly Cloudy.			Cloudy.
Maine.																				
Bar Harbor	Hancock	20	32	39.2	+0.3	60	1	16	26†	26	5.10	+0.41	2.02	0	11	15	10	5	nw.	Mount Desert Nurseries.
Cornish	York	778	63	36.4	+1.3	57	10	10	27	33	3.25	-0.59	1.40	0.5	10	13	11	6	nw.	L. W. Pease.
Eastport	Washington	53	46	37.6	+0.8	53	10	16	27	19	2.00	-2.08	0.96	0.1	10	7	8	15	nw.	U. S. Weather Bureau.
Farmington	Franklin	450	21	36.2	+3.1	62	1	12	26	24	4.15	+0.77	1.09	0.5	12	8	10	12	nw.	State Normal School.
Gardiner	Kennebec	163	26	38.0	+1.3	60	1	13	27	28	3.46	-0.34	1.42	0	13	12	5	13	sw.	Samuel D. Soule.
Greenville	Piscataquis	1,140	14	32.6		51	1	8	26†	22	3.77	+0.74	1.51	5.2	16	6	4	20	sw.	U. S. Weather Bureau.
Houlton	Aroostook	362	16	33.4		64	1	10	26	23	2.05	-0.13	1.10	6.0	3	8	11	11	w.	Bangor & Aroostook RR.
Lewiston	Androscoggin	185	35	37.4	+1.7	54	1	14	27	25	3.86	-0.04	1.06	T	11	11	11	8	nw.	Union Water Power Co.
Madison	Somerset	257	15	35.4		65	1	13	27	29	4.35	+1.13	0.98	0	12	10	5	15	nw.	Great Northern Paper Co.
Millinocket	Penobscot	386	15	33.4		54	1	12	26†	29	5.25	+1.77	2.28	5.0	10	11	0	19	nw.	Great Northern Paper Co.
North Bridgton	Cumberland	450	25	37.7	+0.7	58	1	9	27	35	2.70	-0.75	0.81	T	12	16	5	9	n.	Maine State College.
Orono	Penobscot	129	49	37.4	+3.2	60	1†	14	26	27	2.33	-1.43	0.85	0	9	17	5	8	sw.	Bangor & Aroostook RR.
Patten	do	550	16	29.8		60	1†	21	29	31†	2.70	-0.25	1.00	5.0	5	9†	16†	16†	ne.	U. S. Weather Bureau.
Portland	Cumberland	99	47	39.7	+2.1	56	1	17	27	24	3.38	-0.42	1.69	0	13	8	11	11	w.	E. M. Libby.
Presque Isle	Aroostook	1,000	9																	Charles A. Mixer.
Rumford	Oxford	505	25	36.4	+2.3	50	1†	14	26	22	3.09	-0.17	1.03	0.5	11	8	9	13	nw.	Rev. J. M. Thomas.
Van Buren	Aroostook	510	14	28.4		51	1	6	27†	27	2.47	+0.68	1.00	16.2	14	6	10		w.	Hollingsworth & Whitney
Winslow	Kennebec	90	23	37.6	+3.2	64	1	14	26†	29	3.26	+0.26	1.26	0	9	14	6	10		
New Hampshire.																				
Alstead Center	Cheshire	1,120	14	37.8	+2.8	59	18	10	26	26	2.47	-0.58	0.75	0.5	9	16	4	10	nw.	Frank Dewing.
Berlin	Coos	1,090	21	33.3		58	16	6	26	32	2.62	-0.29	0.69	4.3	18	8	5	17	n.	Brown Company.
Bethlehem	Grafton	1,470	26	34.0	+1.4	63	18	5	27	27	2.06	-0.60	0.64	7.7	14	8	3	19	w.	Benjamin Tucker.
Concord	Merrimack	350	57	39.2	+2.4	58	15	13	27	34	2.35	-1.05	1.30	0.2	10	7	9	14	nw.	U. S. Weather Bureau.
Durham	Stafford	88	23	39.8	+0.8	64	7	12	27	40	1.39	-1.63	1.41	0	9	13	4	13	nw.	N. H. Agr. College.
Franklin	Merrimack	440	19	37.8	+2.0	59	1†	6	27	35	2.34	-0.07	1.49	0.5	7	6	8	16	nw.	Gilbert Hodges.
Glencoff	Grafton	1,650	5	33.2		59	17	6	26†	30	2.57		1.02	8.4	11	10	2	18	nw.	State Sanatorium.
Grafton	do	863	32																	P. R. Kimball.
Hanover	do	603	84	36.9	+3.3	58	1†	7	27	34	1.56	-1.23	0.40	0.7	13	5	6	19	sw.	Dartmouth College.
Keene	Cheshire	506	33	38.4	+1.7	63	18	8	27	40	2.21	-0.43	0.93	0.3	10	8	9	13	sw.	Samuel Wadsworth.
Newton	Rockingham	126	30	38.4	+0.6	63	18	10	27	34	2.80	-0.51	1.75	T	9	12	12	6	nw.	W. C. Gale.
Pittsburg	Coos	1575		31.0		67	1	4	26	34	4.05		0.87	8.0	14	6	3	21	w.	Conn. Valley Lumber Co.
Plymouth	Grafton	500	30	36.5	+3.8	55	1	8	27	31	2.42	-0.68	0.72	1.0	7	10	6	14	w.	Mrs. Hattie G. Trow.
Vermont.																				
Bloomfield	Essex		11	35.6		64	18	10	26†	33	2.69	+0.83	0.66	4.0	17	8	4	18	se.	Lyman Falls Power Co.
Burlington	Chittenden	404	11	36.6	+2.9	63	18	14	26	23	4.53	+1.95	3.41	0.5	12	3	8	19	s.	U. S. Weather Bureau.
Cavendish	Windsor	910	15	37.4		58	18	7	27	42	3.24	+1.15	1.28	0	15	16	4	8	sw.	Colonial Power Co.
Chelsea	Orange	840	23	34.4	+1.2	58	18	1	27	39	2.27	-0.50	1.00	0	9	5	7	18	n.	W. F. Dewey.
Cornwall	Addison	517	25	39.0	+2.9	66	18	13	26	27	3.69	+1.29	2.75	2.0	12	9	10	11	s.	C. H. Lane.
Enosburg Falls	Franklin	601	27	35.6	+1.1	66	18	12	26	25	3.16	-0.66	1.27	7.0	16	9	3	18	w.	J. W. Pomeroy.
Hyde Park	Lamoille	576	6	35.2		58	16	4	27	32	2.75		1.00	0	14	6	5	18	nw.	A. V. Wiswell.
Northfield	Washington	876	32	34.3	+2.3	57	18	4	27	33	2.25	-0.35	1.41	2.0	12	2	10	18	s.	U. S. Weather Bureau.
Rutland	Rutland	562	2	38.4		70	18	11	27	30	2.46		1.36	0.7	11	9	7	14	nw.	George H. Ross.
Somerset	Windham	2,096	7	32.8		60	16	5	26	44	2.32		1.17	0.8	10	6	12	12	nw.	Power Construction Co.
St. Johnsbury	Caledonia	711	25	35.8	+2.5	60	18	7	27	31	1.99	-0.65	0.39	0.7	15	7	5	18	n.	Fairbanks Museum.
Vernon	Windham	310	3	39.7	-2.6	61	1	12	26	40	2.34	-1.57	1.17	0	6	10	4	16	n.	Conn. River Power Co.
Wells	Rutland	750	27	37.4	+2.5	65	18	7	21	26	2.00	-0.23	0.82	0	7	6	11	13	n.	E. R. Pember.
Woodstock	Windsor	700	26	36.2	+2.4	62	1	7	27	32	3.29	+0.41	2.23	0.5	7	8	8	14	.....	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	29	40.0	+1.7	62	8	16	26†	31	2.87	-0.34	0.85	T	7	7	7	16	nw.	Mass. Agr. College.
Blue Hill	Norfolk	640	34	40.3	+0.6	60	18	14	26	25	2.19	-1.74	0.80	0.1	11	9	9	12	w.	Blue Hill Observatory.
Boston	Suffolk	124	48	45.0	+3.8	65	18	19	26	22	1.20	-2.90	0.67	T	9	7	11	12	w.	U. S. Weather Bureau.
Chestnut Hill	do	124	38	39.4	-1.9	63	1†	10	27	34	1.88	-2.13	1.15	T	7	15	0	15	.....	Met. Water Board.
Clinton	Worcester	370	22	41.9		65	16†	15	26	28	2.59	-0.84	1.48	T	7	10	9	11	sw.	Fred A. Tower.
Concord	Middlesex	139	28	40.2	+2.0	64	18	13	27	32	2.59	-0.64	1.35	0	11	5	22	3	sw.	C. V. S. Remington.
Fall River	Bristol	200	52	44.3	+1.4	63	16†	20	26	20	2.32	-1.74	1.05	T	7	5	12	8	nw.	Dr. A. P. Mason.
Fitchburg	Worcester	550	35	40.6	+2.2	65	16	14	26	33	2.60	-0.67	0.96	0.5	9	12	9	14	nw.	Met. Water Board.
Frankingham	Middlesex	160	33	42.4	+1.7	65	1	15	27	30	2.59	-1.07	1.64	0	12	9	14	7	nw.	Essex Company.
Lawrence	Essex	51	34	41.8	+1.9	64	18	15	27	27	3.09	-0.56	1.56	0	12	9	14	7	nw.	Props. Locks & Canals.
Lowell	Middlesex	100	33	41.4	+1.9	66	1	15	26†	33	2.25	-1.35	1.39	0	8	7	10	12	nw.	U. S. Weather Bureau.
Nantucket	Nantucket	47	32	46.0	+0.8	61	16	23	26	18	1.53	-1.75	0.49	0	9	9	9	12	nw.	City Engineer.
New Bedford	Bristol	88	106																	Miss L. B. Knapp.
Plymouth	Plymouth	50	33																	Gideon Bowley.
Provincetown	Barnstable	40	31	43.4	-0.5	60	1	20	26	22	2.48		1.27	0	9	14	8	8	nw.	U. S. C. G. Station
Rockport	Essex	25	16	43.6		61	1	20	26	22	2.48		1.27	0	9	14	8	8	nw.	State Sanatorium.
Rutland	Worcester	1,160	16	39.0		64	8†	11	25	34	3.40		2.30	0.2	8	12	12	6	w.	U. S. Army.
Springfield	Hampden	199	8	42.0	+3.2	63	18	17	27	35	2.10	-1.74	1.41	0	7	9	10	11	nw.	Turners Falls Co.
Turners Falls	Franklin	200	32	41.2	+4.0	63	18	17	26†	31	2.22	-0.98	1.22	0	7	8	10	12	w.	Miss E. W. Newcomb.
Westboro	Worcester	298	44	43.5	+3.7	66	18	20	26	25	3.19	-0.61	1.92	T	7	8	10	11	nw.	Williams College.
Williamstown	Berkshire	711	37	39.8	+2.2	65	18	14	26	28	1.83	-1.06	0.40	1.1	12	5	7	18	nw.	G. W. Swan.
Worcester	Worcester	518	26	42.3	+1.7	64	18	18	26	25	2.79	-0.96	0.80	T	9	9				



## Daily Precipitation for November, 1918.

Stations.	Watersheds.	Day of month.																															Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Maine.																																		
Ashland	St. John										.10								1.20	1.20	.21	.65	.18	.06	.01	.02					.48	.08	3.59	
Bar Harbor	Coast	.03				.01					.48								2.02	.85	.69	.10	.09	.03							.79		5.10	
Cornish	Saco			.17	.04			T.		T.	.27			T.	.05				1.40	.48	.10	.06				T.					.68		3.25	
Eastport***	Coast	T.						T.		T.	.26				.14				.12	.86	.03	.03	T.	.13	.02						.49	.01	2.10	
Eustis	Kennebec			.04	.12					T.	.16	.01				.09	.04	.05	T.	.87	.81	.23	.41	.02	T.	.01	T.	.01	.02		.25	.02	3.16	
Farmington	do			.15						.17	.29							.10	.34	1.09	.60	.45	.40	.02						.52	.02	4.15		
Gadamer	do	.03		.16	.07					.05	.29			.08					.10	1.42	.22	.20	.29	.01						.54		3.46		
Greenville***	Penobscot			T.	.02			.04		.08	.22				.05				.04	1.47	.37	.58	.29	.05	.05		.03	.02	T.		.16	.10	3.77	
Houlton	St. John																		1.10	.90										.65		2.65		
Lewiston	Androscoggin			.21	.05					.08	.11				.30				.41	1.06	.55	.28	.29							.52	T.	3.86		
Madison	Kennebec			.19						.27				.26	.04				.98	.82	.36	.71	.15							.46	.11	4.35		
Milbrook	Penobscot									.14									1.16	2.28	.37	.45	.11	.18						.41	.12	.05	5.25	
North Bridgton	Saco			.19	.10					.18	.15				.04				.24	.81	.38	.08	.10	.02		T.	T.				.61	T.	2.70	
Orono	Penobscot				.03					.20	.22								.85	.47	.20	.19	.08	.08						.21		2.33		
Patten	do									.20									1.00	.30	1.00									.20		2.70		
Portland***	Coast			.25	.03					.01	.09			.07	.14				1.08	.96	.03	.09	.12								.44		3.38	
Presque Isle	St. John																		.65	.70	.23	.25	.22								.46	.03	3.09	
Rumford	Androscoggin			.26	T.					.17	T.			T.	.09				.32	.55	.05	T.	.02	.09	.07	.06							2.47	
Van Buren	St. John	T.	.04					.07	.01	.01	.13			.05					.70	.32	.23	.25	.22										2.47	
Winslow	Kennebec			.17						.16					.04	T.			* 1.26	.45	.41	.41	T.							.36		3.26		
New Hampshire.																																		
Alstead Center	Connecticut		T.		.22	.13				T.	.13				T.				.40	.75	.50	.07	T.					.01		T.	.26	T.	2.47	
Berlin	Androscoggin	T.		.01	.25			T.	.02	.17	.10				.01				.37	.69	.10	.12	.15	.06	.01		.06	T.	.02	.32	.04	.12	2.62	
Bethlehem	Connecticut	.02			.20					.09	T.				.07				.18	.26	.38	.19	.14	.07	.03		.10			.11	.26	.15	2.06	
Concord***	Merrimack			.21	.02					.05	T.			T.	T.				.62	1.00	.03	.03	.01			T.							2.34	
Durham	do			.05	.06						.03				.09				.33	.16		.21	.05							.41		1.39		
Franklin	do			.32						.13									*	1.49	T.									.40		2.34		
Glencoff	Connecticut			.30				T.		.21	.07				.25				1.02	.04			.05	.05		.08				.24		.26	2.57	
Grafton	Merrimack				T.														.25	.17	.34	.03	.01	.01	T.	T.	.02			T.	.40	.01	1.56	
Hanover	Connecticut		T.		.24			.02		.04	.02				T.				.33	.93	.18	.07	T.				T.			T.	.27	.03	2.21	
Keene	do			.18	.05					.09	.08								.75	.16	.02	.02	.02	.02	.02	.02	.02				.38	T.	2.80	
Newton	Merrimack			.08						.22				.15					1.75	.16	.02	.02	.02	.02	.02	.02	.02				.21	.22	.08	4.05
Pittsburg (a)	Connecticut			T.	.07					.65				.09	.07				.87		.73	.05	.37	.10	.20	.34				.21	.22	.08		3.61
Pittsburg (b)	do									.70				.09					.87	.40	.10	.30	.18	.11	.05	.08				.15	.13	.45	.20	3.61
Plymouth	Merrimack	T.		.40	T.			T.		T.	.20			T.					.22	.72	.30	.08								.50	T.		2.42	
Vermont.																																		
Bloomfield	Connecticut			.02	.15	.14				T.	.25				.10	.10			.12	.54	.37	.05	.20	.17	.04			.04	.06		.34	.02	2.69	
Burlington***	Champlain	.04	T.	T.	.23			T.	T.	T.	.15				.07	.10			.25	2.29	1.20	.02	.09	T.	T.			T.	.05	.10	.04	4.53		
Cavendish	Connecticut		.01		.41	.02				T.	.10	.04		.01	.03	.03			.31	.45	1.28	.05	.01							.50	.01	3.24		
Chelsea	do			.20						.06	T.								.28	.07	1.00	T.	.02				.04					.10	2.27	
Cornwall	Champlain		T.		.24			.01		T.	.01	.10		.02	T.				.30	1.00	1.00	.25	T.	.10			.01			.10	.05	3.69		
Enosburg Falls	do			.29				.13		T.	.07	.16		.07	.01				.11	.38	1.27	.15	.10	.22	.04		.03			.01	.12	3.16		
Hyde Park	do		.07		.21			.05		.05	.33			.08					.03	.44	1.00	.03	.02		.15		.03			.26		2.75		
Northfield***	Champlain	T.	T.		.16			T.		.02	.06				.01	.01			.17	1.32	.15	.04	T.	T.		.05	T.	.08		.12	.11	.04	2.25	
Rutland	do			.01	.20				T.	T.	.04				.01	.08			*	.15	1.86	.06	.06	T.				.07		.42		2.46		
Somerset	Connecticut			.07	.41					.03	.33			.03	.08				.79	.38	.08	.11								.12	T.	2.32		
St. Johnsbury	do	.05	.01		.25	.14				.10	.23			.06					.04	.39	.31	.04	.02	T.	T.		.01	T.	T.	.29	.05	1.99		
Vernon	do			.30	.14					.16									1.17	.41	T.	.07								.23		2.34		
Wells	Champlain			.22						.06					T.				.11	.12	.82	.24								.43		2.00		
Woodstock	Connecticut			.23						.21									*	2.23		.06				.03			.53			3.29		
Massachusetts.																																		
Amherst	Connecticut			.31							.14				.04				.85	.84	.13	.08							.23	.43	T.	2.87		
Ashland	Merrimack			.37	.01		.01				.14				.04				*	1.54		.09								.20		2.40		
Bakers Bridge	do			.26							.20				.15				.68			.20								.25		2.74		
Bedford	do			.14	.04						.17			T.	.09				.57	.99		.09	.01					T.		.28	T.	2.38		
Blue Hill	Coast			.04	.04			T.	T.		.18			.01	.11				.42	.90	T.	.06	.02							.40	.01	2.19		
Boston***	do			.04	.03					.06									.46	.21		.05	T.							.18	T.	1.20		
Brockton	Coast			T.	.02			T.			.10			.17					.10	1.33	.02	.13	.07	T.						.24	T.	2.18		
Chestnut Hill	do			.10						.10				.12					1.15	.15	.15	.08					T.	T.		.18		1.88		
Clinton	Merrimack			T.	.39					.28	.03			.03	.39				*	1.48		.11								.30		T.	2.59	
Concord	do			.13	.10					T.	.19			T.	.01	.14			.36	1.22	.03	.10	.02					T.		.29	T.	2.59		
Fall River	Coast									.36				.02					.85	.51		.10							.24	.24	T.			



Stations.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean	
Maine.																																	
Bar Harbor	Maximum	60	54	49	45	47	45	48	46	44	54	55	44	45	44	46	51	48	51	51	50	46	43	38	41	45	41	38	37	49	46	46.7	
	Minimum	45	32	36	28	35	31	29	35	26	43	29	22	24	37	34	32	32	43	42	44	39	36	32	26	28	16	16	25	27	36	31.8	
Eastport	Maximum	53	51	45	42	39	41	46	42	45	58	40	43	40	44	45	45	46	49	46	43	40	36	38	46	27	35	38	47	40	42	42.8	
	Minimum	43	40	36	36	34	33	38	35	31	39	30	24	34	32	35	33	34	38	39	41	37	35	24	27	16	16	24	37	30	32	32.5	
Farmington	Maximum	62	49	44	36	46	41	45	47	40	51	43	40	45	44	45	48	40	44	40	41	40	41	35	39	43	35	37	35	45	44	43.8	
	Minimum	40	32	36	29	28	26	24	32	22	40	24	16	38	33	35	35	28	38	35	38	35	34	27	24	21	12	13	28	32	29	29.5	
Gardiner	Maximum	60	52	46	40	47	47	48	47	44	53	45	47	47	43	45	50	46	48	47	44	47	46	39	43	48	38	39	39	50	43	45.8	
	Minimum	41	35	35	31	33	26	26	33	25	40	27	19	22	35	31	37	30	43	40	41	37	35	29	23	23	16	13	19	29	30	30.2	
Greenville	Maximum	51	45	39	39	38	43	38	41	37	46	38	42	39	35	36	42	42	41	37	38	37	36	33	32	39	25	30	34	38	38	38.3	
	Minimum	37	36	33	29	23	23	25	31	20	37	24	23	32	32	29	30	35	22	31	32	32	21	20	20	8	8	14	25	26	26.8		
Millinocket	Maximum	42	39	36	33	24	22	23	83	19	34	26	16	15	32	20	24	27	37	31	32	34	33	29	22	21	12	14	34	35	40	37	40.2
	Minimum	60	55	60	50	42	46	47	45	44	54	49	42	44	42	43	49	50	49	47	45	43	39	38	43	48	41	37	40	32	40	45.6	
Orono	Maximum	56	50	48	42	48	42	48	50	46	56	43	41	45	44	48	48	49	51	55	45	44	45	39	45	46	30	41	42	49	44	46.0	
	Minimum	41	37	35	35	33	29	51	36	33	39	30	26	29	36	35	38	39	45	42	53	40	33	59	28	30	17	17	27	40	29	33.4	
Presque Isle	Maximum	50	46	41	35	37	40	40	40	43	47	40	42	42	42	42	50	40	46	42	44	40	41	34	40	42	26	36	37	43	39	41.7	
	Minimum	40	40	37	30	32	28	24	30	27	40	30	24	24	36	36	34	34	38	38	41	38	36	27	27	24	14	16	22	34	28	31.0	
Van Buren	Maximum	51	44	40	38	35	40	36	39	37	44	32	33	39	35	39	43	37	36	36	37	38	36	28	33	35	12	29	29	32	36	36.0	
	Minimum	37	33	37	25	23	19	26	22	20	26	17	12	14	12	18	13	30	31	34	31	28	16	15	10	7	6	14	28	20	28.8		
New Hampshire.																																	
Alstead Center	Maximum	53	46	42	38	45	40	48	48	45	54	41	42	40	40	53	58	51	59	54	47	41	40	34	41	37	36	37	38	46	41	44.5	
	Minimum	38	35	33	30	35	25	24	35	34	41	25	21	27	27	28	41	40	45	44	40	36	30	28	29	10	13	28	36	30	30	31.0	
Bethlehem	Maximum	50	42	36	33	42	38	42	45	43	51	38	41	45	36	38	56	43	63	48	42	41	34	30	36	39	31	32	40	42	39	41.2	
	Minimum	33	34	31	27	30	19	21	29	27	32	20	19	21	27	30	32	35	40	35	35	32	30	24	21	29	7	5	16	34	29	26.8	
Concord	Maximum	55	49	46	40	52	45	54	56	44	56	48	46	46	45	58	57	47	53	53	48	44	43	38	48	45	30	40	42	48	44	47.3	
	Minimum	41	35	28	27	35	25	20	33	30	40	27	20	23	31	32	36	44	44	42	42	38	33	32	31	27	15	13	20	38	31	31.1	
Franklin	Maximum	59	53	44	38	52	44	52	57	45	57	44	46	46	47	53	59	45	50	53	50	47	45	39	48	40	41	41	56	45	47	49.9	
	Minimum	35	33	29	22	35	20	19	37	33	54	39	24	14	20	24	22	28	39	43	40	39	39	32	30	28	20	14	6	14	36	27	27.6
Hanover	Maximum	58	46	41	37	48	44	46	52	46	50	44	45	41	45	53	57	46	58	51	50	44	41	37	44	42	32	41	39	46	44	46.6	
	Minimum	37	32	29	26	34	20	22	29	29	30	24	16	21	21	24	29	40	45	43	39	36	32	28	27	29	10	7	18	35	26	28.2	
Keene	Maximum	56	61	49	44	51	46	55	58	45	57	46	51	45	47	58	60	47	68	61	49	44	44	41	49	43	38	40	42	47	43	49.1	
	Minimum	32	26	27	25	37	22	18	30	29	49	26	14	20	27	18	31	37	46	46	40	38	21	30	29	19	13	8	15	37	27	27.7	
Pittsburg	Maximum	67	43	36	33	34	31	41	40	41	45	39	38	45	41	32	37	53	46	38	38	40	34	20	34	31	20	28	35	32	31	37.5	
	Minimum	33	32	20	20	20	20	24	25	25	32	20	15	25	28	27	30	34	39	33	33	31	30	19	18	5	4	5	20	22	26	24.6	
Plymouth	Maximum	55	57	42	38	46	40	45	50	44	50	44	43	42	41	48	52	41	50	50	50	40	40	36	43	40	38	39	45	43	44	44.3	
	Minimum	36	30	35	25	33	30	34	26	40	27	16	23	25	30	26	33	41	41	40	44	38	36	29	28	21	14	8	29	34	30	28.7	
Vermont.																																	
Burlington	Maximum	50	43	39	38	41	45	47	45	44	50	36	41	41	41	50	53	52	63	43	39	40	38	36	43	40	23	40	40	44	38	42.9	
	Minimum	43	37	30	30	28	24	36	32	35	31	25	21	32	31	30	36	44	42	34	34	34	30	26	28	17	14	20	25	34	23	30.2	
Enosburg Falls	Maximum	57	41	38	37	40	48	47	44	50	51	41	46	44	38	44	45	55	66	55	40	39	36	32	43	30	36	44	44	39	43	43.7	
	Minimum	39	35	35	27	26	20	27	27	27	29	20	17	24	28	27	28	33	37	32	32	33	31	22	26	29	10	15	16	30	27	27.6	
Northfield	Maximum	49	44	39	34	44	45	47	47	46	49	38	43	39	40	48	56	45	57	49	41	39	38	35	43	40	18	37	38	45	39	42.5	
	Minimum	35	34	26	28	25	22	25	23	30	31	19	14	24	24	24	29	36	44	39	38	35	30	25	25	15	5	4	18	35	20	26.3	
St. Johnsbury	Maximum	54	46	39	37	45	44	48	44	49	47	42	46	44	40	41	57	49	60	54	45	43	38	34	44	42	34	35	39	42	41	43.9	
	Minimum	35	32	35	28	32	20	25	32	27	40	22	17	21	26	28	26	30	42	39	38	34	31	24	25	22	11	7	12	34	28	27.7	
Wells	Maximum	55	45	42	42	42	43	48	46	48	38	40	43	40	40	47	52	55	65	60	45	40	38	36	36	34	36	40	48	40	44	44.2	
	Minimum	37	33	34	30	34	22	28	31	32	33	21	19	23	29	27	40	44	52	45	38	33	32	25	29	26	8	16	21	38	28	30.7	
Massachusetts.																																	
Amherst	Maximum	54	50	52	42	50	50	53	62	49	54	49	51	41	47	58	58	49	62	45	46	44	43	41	47	43	35	40	43	50	43	48.6	
	Minimum	39	33	31	29	36	28	22	34	34	32	26	21	23	23	28	40	42	41	52	46	43	36	32	30	28	16	24	40	43	30	31.4	
Blue Hill	Maximum	55	48	45	50	45	34	51	53	48	55	41	42	47	44	55	54	54	60	55	49	43	42	37	44	42	35	38	40	51	43	46.8	
	Minimum	42	34	32	36	38	29	34	40	39	41	28	25	35	32	30	44	44	51	43	41	38	31	29	26	27	14	16	29	37	28	33.8	
Boston	Maximum	58	53	51	63	49	42	58	56	52	60	44	42	34	28	35	39	37	49	48	56	50	47	43	36	35	33	34	19	22	33	44	33.8
	Minimum	46	42	39	36	39	33	39	44	41	42	34	28	35	39	37	50	59	56	60	53	47	47	45	50	49	39	44	44	56	48	51.5	
Concord	Maximum	55	51	49	49	47	45	55	62	49	49	47	46	48	52	47	59	59	64	58	48	44	45	41	47	47	36	41	43	54	46	49.9	
	Minimum	39	31	28	24	32	26	29	30	28	37	24	11	21	31	26	33	44	52</														







Day of month.

Special River Rainfall Stations.Daily Evaporation (inches) and Wind Movement (miles).

See temperature and precipitation data in Climatological Tables.

†† Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.; Sewall's Falls, Concord, N. H.

Year	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.				
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.
1888.....	39.5	80	- 9	6.32	.....	14	5.0	9	5	14	.....	sw.	12.4	67	-10	1.63	2.10	5	5.9	13	7	10	52	nw.	9.6	74	ne.
1889.....	41.1	68	- 1	6.12	.....	14	3.4	8	8	15	.....	w.	10.3	63	- 6	2.60	2.15	8	2.5	13	7	10	54	w.	10.5	63	s.
1890.....	37.4	71	- 2	1.40	.....	8	T.	10	11	9	.....	nw.	15.0	54	0	2.54	2.20	9	8.4	10	7	13	41	nw.	10.9	61	ne.
1891.....	37.7	68	-14	2.69	.....	10	1.8	11	8	11	.....	nw.	11.6	63	0	5.06	3.00	10	2.4	10	7	13	37	nw.	10.6	70	ne.
1892.....	37.7	76	- 6	5.10	.....	11	6.8	8	6	17	.....	nw.	11.6	70	- 4	1.17	1.20	8	3.2	12	7	11	49	nw.	11.2	60	w.
1893.....	37.7	76	- 6	5.10	.....	11	6.8	10	10	10	.....	sw.	11.4	72	- 7	2.96	4.36	9	3.1	11	8	11	39	sw.	12.7	72	ne.
1894.....	37.8	69	- 1	2.17	.....	7	2.6	10	10	10	.....	sw.	11.4	72	- 7	2.96	4.36	9	3.1	11	8	11	39	sw.	12.7	72	ne.
1895.....	37.8	72	- 8	3.36	.....	15	8.7	11	7	13	48	nw.	13.1	73	- 4	3.40	5.04	9	6.6	7	9	13	46	nw.	12.1	58	nw.
1896.....	34.2	69	- 3	5.98	.....	15	3.0	8	7	16	41	sw.	11.3	77	- 5	3.59	2.97	8	3.0	13	6	11	46	nw.	12.2	62	ne.
1896.....	40.8	78	- 3	5.98	.....	15	3.0	8	7	16	41	sw.	11.3	77	- 5	3.59	2.97	8	3.0	13	6	11	46	nw.	12.2	62	ne.
1896.....	42.0	74	-11	3.19	3.03	12	3.8	7	8	15	32	sw.	12.0	52	- 6	2.37	3.64	7	2.6	12	7	12	49	nw.	11.6	58	s.
1897.....	36.9	64	- 3	6.38	5.40	14	7.5	7	8	15	36	nw.	13.1	63	-10	2.62	3.00	8	6.5	11	9	10	49	nw.	12.3	58	ne.
1898.....	37.7	67	- 3	5.68	3.60	11	17.5	10	6	14	36	nw.	12.2	97	- 6	2.62	3.00	8	6.5	11	9	10	49	nw.	12.3	58	ne.
1899.....	37.1	71	- 5	2.16	.....	12	6.9	8	7	15	38	nw.	11.7	71	- 7	2.96	3.28	9	5.1	13	6	11	52	nw.	11.5	62	s.
1900.....	40.0	74	- 1	5.49	3.26	12	6.9	8	7	15	38	nw.	11.7	71	- 7	2.96	3.28	9	5.1	13	6	11	52	nw.	11.5	62	s.
1901.....	32.7	72	- 9	2.20	2.30	7	6.7	9	8	13	41	nw.	11.3	81	-20	0.96	1.20	5	4.3	16	6	8	57	nw.	11.2	57	nw.
1902.....	41.9	71	- 1	1.27	1.25	7	2.0	10	8	12	39	nw.	9.5	60	- 2	2.77	3.41	10	1.2	10	8	12					



U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, CHIEF

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# CLIMATOLOGICAL DATA

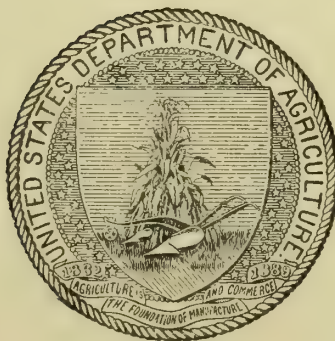
NEW ENGLAND SECTION

DECEMBER, 1918

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BY  
JOHN W. SMITH  
METEOROLOGIST

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BOSTON, MASS.  
WEATHER BUREAU OFFICE  
JANUARY 17, 1919



Departure of the Mean Temperature from the Normal, December 1918.





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

Vol. XXX. BOSTON, MASS., DECEMBER, 1918. No. 12.

## GENERAL SUMMARY.

The moderate conditions for the season that marked the preceding two months continued to prevail during December. The average temperature was above the normal, and the highest for the month since 1913. Temperatures of zero or below occurred only in scattered localities in the northern portion of the section, and on only a few days. The precipitation was practically normal. It was slightly above the normal in the northeastern portion of the section, and slightly below in the remainder of the district. Except in Vermont, where a considerable number of stations reported less than two inches, the monthly totals were generally between 3 and 4 inches. The snowfall was near the normal, and occurred in moderate amounts at frequent intervals during the first half and last week of the month. There was a large amount of cloudy weather, with a small amount of sunshine.

## PRESSURE.

The mean sea-level atmospheric pressure for the section, 13 stations reporting, was 30.12 inches, which was 0.08 inch above the normal for the month, and 0.07 inch below the mean for December, 1917. The highest monthly mean was 30.14 inches, at Northfield, Vt.; the lowest, 30.09 inches, at Nantucket, Mass. The highest recorded was 30.79 inches, at Concord, N. H. and Northfield, Vt. on the 19th; the lowest, 29.37 inches, at Portland, Me. on the 1st. The monthly range for the section was 1.42 inches.

## TEMPERATURE.

The monthly mean for the section, as shown by the records of 77 stations, was 28.1°, which was 11.4° above the mean for December, 1917. During the past 30 years the average December temperature has been higher in 11 and lower in 19 years than that of the present month. The highest average December temperature during this time was 35.9°, in 1891; the lowest, 16.7°, in 1917. The average temperature for the several States of the section was as follows: Maine, 23.0°; New Hampshire, 25.1°; Vermont, 25.2°; Massachusetts, 32.0°; Rhode Island, 35.0°; Connecticut, 33.0°. The average temperature for the section was 2.1° above the normal for the month. The departures from the normal for the several States were as follows: Maine, +2.0°; New Hampshire, +2.1°; Vermont, +2.5°; Massachusetts, +1.6°; Rhode Island, +1.6°; Connecticut, +2.8°. The highest monthly mean was 38.3°, at Block Island, R. I.; the lowest, 14.2°, at Patten, Me. The highest recorded was 64°, at Fall River, Mass. on the 14th; the lowest, -21°, at Van Buren, Me. on the 8th. The greatest monthly range was 67°, at Van Buren, Me.; the least, 33°, at Provincetown, Mass. The greatest daily range was 46°, at Chestnut Hill, Mass. on the 21st.

## HUMIDITY.

The monthly average for the section, as determined from observations taken at 8 a. m. and 8 p. m., 13 stations reporting, was 80 per cent, which was 5 per cent above the average for December, 1917, and 4 per cent above the normal for the month. The highest monthly average was 88 per cent, at Concord, N. H.; the lowest, 72 per cent, at Boston, Mass.

## PRECIPITATION.

The average for the section, as determined from the records of 77 stations, was 3.25 inches, which was 0.59 inch above the

average for December, 1917. During the past 30 years the average December precipitation has been greater in 15 and less in 15 years than that of the present month. The greatest average December precipitation during this time was 7.59 inches, in 1901; the least, 1.32 inches, in 1892. The average precipitation for the several States of the section was as follows: Maine, 3.47 inches; New Hampshire, 3.14; Vermont, 2.37; Massachusetts, 3.40; Rhode Island, 4.00; Connecticut, 3.52. The average precipitation for the section was 0.10 inch below the normal for the month. The departures from the normal for the several States were as follows: Maine, +0.26 inch; New Hampshire, -0.22; Vermont, -0.31; Massachusetts, -0.03; Rhode Island, -0.04; Connecticut, -0.41. The greatest monthly amount was 5.09 inches, at Springfield, Mass.; the least, 1.13 inches, at Rutland, Mass. The greatest amount in 24 hours was 1.95 inches, at Springfield, Mass. on the 22d. The average snowfall for the section was 11.8 inches, which was 6.1 inches below the average for December, 1917, and 0.9 inch above the normal for the month. During the past 30 years the greatest average December snowfall for the section was 24.2 inches, in 1902; the least, 2.3 inches, in 1891. The average snowfall for the several States was as follows: Maine, 20.9 inches; New Hampshire, 14.0; Vermont, 13.1; Massachusetts, 8.2; Rhode Island, 2.2; Connecticut, 4.0. The average number of days with .01 inch or more of precipitation was 13, 7 more than the average for December, 1917, and 3 more than the normal for the month.

## WIND.

The prevailing direction of the wind was from the northwest, which is the normal direction for the month. The greatest monthly wind movement at any station was 14,557 miles, at Block Island, R. I.; the least, 2,773 miles, at Concord, N. H. The average hourly wind movement was 10.4 miles, which was 1.0 mile below the average for December, 1917, and 1.0 mile below the normal for the month. The highest recorded velocity was 60 miles per hour from the west, at Block Island, R. I. on the 1st. This is less than the usual maximum velocity for the month.

## SUNSHINE AND CLOUDINESS.

The average number of clear days was 9; partly cloudy, 6; cloudy, 16, which compares with the normal for the month of 11 clear, 8 partly cloudy and 12 cloudy days. The average percentage of possible sunshine, as determined from the records of 11 stations having self-recording instruments, was 39, which was 7 per cent below the average for December, 1917, and 5 per cent below the normal for the month. The greatest percentage of possible sunshine at any station was 45, at New Haven, Conn.; the least, 27, at Burlington, Vt. During the past 24 years the percentage of possible sunshine in December has been greater in 20 years, the same in 2 years, and less in 2 years than that of the present month. The greatest average percentage of possible sunshine in any December during this time was 55, in 1894 and 1896; the least, 31, in 1906.

## DATES OF MISCELLANEOUS PHENOMENA.

*Thunderstorms* (dates and number of observers reporting on each)—Brockton, Plymouth and Provincetown, Mass., on the 4th; Nantucket, Mass., 6.

*Halos, Solar.*—North Bridgton, Me., 15, 16; Northfield, Vt., 7, 16; Woodstock, Vt., 15; Boston, Mass., 16; Providence, R. I., 3, 7; New Haven, Conn., 12.

*Auroras.*—Ashland, Me., Blue Hill, Mass., 8; Durham, N. H., 25; Hanover, Plymouth, N. H., Concord, Leominster, Mass., 1; Enosburg Falls, Vt., 2; Blue Hill, Mass., 8.

*Halos, Lunar.*—Northfield, Vt., 16; Woodstock, Vt., Kingston, R. I., 15; Blue Hill, Mass., 15, 16, 20, 22; Boston, Mass., 15, 16, 20; Hingham, Mass., 20; Leominster, Mass., 15; Providence, R. I., 16, 17, 20; New Haven, Conn., 9.



## Climatological Data for December, 1918.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				No. of days.				Prevailing direction of wind.	Observer.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	Wet precipitation, 1.01 or more.	Clear.	Partly Cloudy.			Cloudy.
Maine.																				
Bar Harbor	Hancock	20	32	29.2	+2.4	56	15	-5	31	35	3.31	-1.33	1.20	30.5	10	15	6	10	n.	Mount Desert Nurseries.
Cornish	York	778	65	24.6	-0.6	53	23	-5	31	32	4.55	+1.43	0.92	17.5	17	12	3	16	w.	L. W. Pease.
Eastport	Washington	53	46	26.3	+1.5	50	15	-4	31	23	2.31	-1.66	0.45	12.4	16	6	7	18	nw.	U. S. Weather Bureau.
Farmington	Franklin	450	21	23.0	+5.5	49	23	-4	11	33	3.56	+0.24	0.82	20.0	13	9	12	10	nw.	State Normal School.
Gardiner	Kennebec	163	26	24.1	+0.4	56	23	-1	11	34	4.13	+0.46	0.73	20.5	15	11	5	15	nw.	Samuel D. Soule.
Greenville	Piscataquis	1,140	14	20.6		47	21	-6	31	34	3.49	+0.70	0.67	26.9	19	8	6	17		U. S. Weather Bureau.
Houlton	Aroostook	362	16	21.0		47	23	-8	11	28	1.77	-0.60	0.40	17.0	7	14	8	9	w.	Bangor & Aroostook R.R.
Lewiston	Androscoggin	185	35	24.2	+0.8	54	21	-5	11	33	4.22	+0.28	0.81	18.1	19	9	12	10	ne.	Union Water Power Co.
Madison	Somerset	257	15	21.3		51	24	-6	31	36	4.36	+1.17	1.57	22.8	11	15	3	13		Great Northern Paper Co.
Millinocket	Penobscot	386	15	19.6		50	23	-9	11	42	3.24	+0.11	1.19	28.8	13	12	1	18	nw.	Great Northern Paper Co.
North Bridgton	Cumberland	450	25	25.3	+1.6	55	23	-0	31	33	3.84	+0.49	0.90	12.5	13	8	8	15	ne.	C. L. Chadbourne.
Orono	Penobscot	129	49	24.0	+2.7	50	23	-4	11	36	4.23	+0.71	1.40	23.3	11	12	11	8	nw.	Maine State College.
Presque Isle	do	550	16	14.2		40	23	-15	31	37	3.20	+0.92	1.00	16.0	6	8	9	18	ne.	Bangor & Aroostook R.R.
Portland	Cumberland	99	47	28.0	+0.9	56	23	10	31	22	4.30	+0.62	0.81	14.4	20	9	3	19	nw.	U. S. Weather Bureau.
Presque Isle	Aroostook	1,000	9																	E. M. Libby.
Rumford	Oxford	505	25	24.8	+3.3	50	23	-0	11	24	2.72	-0.12	0.83	25.5	15	9	9	13	nw.	Charles A. Mixer.
Van Buren	Aroostook	510	14	16.2		46	23	-21	8	35	3.50	+0.82	1.60	2.65	7					Rev. J. M. Thomas.
Winslow	Kennebec	90	23	24.2	+3.2	51	15	-3	11	34	2.96	+0.11	0.74	22.5	13	10	7	14	n.	Hollingsworth & Whitney
New Hampshire.																				
Alstead Center	Cheshire	1,120	14	26.6	+3.3	48	15	1	7	20	2.74	-0.33	0.73	14.5	14	15	0	16	nw.	Frank Dewing.
Berlin	Coos	1,090	21	22.2		51	21	-7	10	35	2.83	-0.34	0.70	15.1	17	7	5	19	ne.	Brown Company.
Bethlehem	Grafton	1,470	26																	Benjamin Tucker.
Concord	Merrimack	350	57	26.8	+0.4	53	21	4	11	32	3.52	+0.17	1.06	13.1	15	9	4	18	n.	U. S. Weather Bureau.
Durham	Stafford	88	23	27.8	+0.5	57	21	3	31	37	2.49	+1.01	0.55	15.9	11	12	3	16	nw.	N. H. Agr. College.
Franklin	Merrimack	440	19	26.0	+2.4	56	21	-1	11	36	3.25	-0.23	0.90	9.9	12	10	1	20	nw.	Gilbert Hodges.
Glencoff	Grafton	1,650	5	23.2		49	20	-2	2	36	3.29		0.88	14.5	12	12	2	17	nw.	State Sanatorium.
Grafton	do	863	32																	P. R. Kimball.
Hanover	do	603	84	26.0	+4.6	52	23	-1	7	31	2.25	-0.39	0.43	7.9	16	6	5	20	nw.	Dartmouth College.
Keenes	Cheshire	506	33	27.2	+1.6	51	23	-8	7	36	3.39	+0.59	0.64	11.5	13	8	6	17	nw.	Samuel Wadsworth.
Newton	Rockingham	126	30																	W. C. Gale.
Pittsburg	Coos	1575		20.2		45	15	-15	31	35	4.45		0.70	27.0	18	5	2	24	e.	Conn. Valley Lumber Co.
Plymouth	Grafton	500	30	25.4	+3.2	52	21	-1	11	33	3.17	+0.02	0.88	10.7	11	8	3	20	nw.	Mrs. Hattie G. Trow.
Vermont.																				
Bloomfield	Essex		11	23.6		48	23	-9	11	33	2.91	+0.79	0.82	12.0	16	10	11	10	s.	Lyman Falls Power Co.
Burlington	Chittenden	404	11	25.5	+3.0	52	23	-0	31	24	1.78	+0.09	0.52	20.5	16	4	4	23	s.	U. S. Weather Bureau.
Cavendish	Windsor	910	15	25.8		46	23	-8	7	45	1.62	-0.78	0.60	8.9	14	11	8	12		Colonial Power Co.
Chelsea	Orange	840	23	23.6	+2.4	47	23	-5	10	28	2.32	-0.24	0.68	8.0	10	5	3	23	s.	W. F. Dewey.
Cornwall	Addison	517	25	27.4	+2.0	52	23	-1	7	24	1.36	-0.72	0.44	16.0	12	5	6	20	s.	C. H. Lane.
Enosburg Falls	Franklin	601	27	20.7	-1.6	53	15	-13	31	31	1.54	-1.36		23.0	14	4	11	11	w.	J. W. Pomeroy.
Hyde Park	Lamoille	576	6																	A. V. Wiswell.
Northfield	Washington	876	32	23.7	+3.2	51	23	-4	31	31	2.23	-0.48	0.87	14.6	16	4	6	21	s.	U. S. Weather Bureau.
Rutland	Rutland	562	2	28.2		53	13	-3	7	28	2.43		0.62	7.4	16	8	7	16	nw.	George H. Ross.
Somerset	Windham	2,096	7	23.2		53	21	-3	6	38	4.20		1.20	19.8	14	7	7	17	sw.	Power Construction Co.
St. Johnsbury	Caledonia	711	25	25.2	+4.5	52	23	-5	31	29	2.79	+0.42	0.76	12.6	18	6	10	15	n.	Fairbanks Museum.
Vernon	Windham	310	3	26.8	+1.1	51	23	-6	7	26	3.46	+0.22	0.78	11.5	10	10	7	14		Conn. River Power Co.
Wells	Rutland	750	27	26.6	+2.8	54	23	0	7	27	2.51	-0.14	0.79	6.0	9	4	10	17	s.	E. R. Pember.
Woodstock	Windsor	700	26	26.8	+5.3	49	23	-6	7	32	1.72	-1.22	0.57	10.5	10	8	2	21		John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	29	29.3	+2.0	52	21	-3	7	28	2.95	-0.59	0.76	7.2	11	15	7	9	nw.	Mass. Agr. College.
Blue Hill	Norfolk	640	34	29.2	-0.6	58	15	7	7	19	4.42	+0.66	1.12	10.1	17	12	3	16	nw.	Blue Hill Observatory.
Boston	Suffolk	124	48	34.7	+3.1	63	15	13	7	24	3.21	-0.20	1.02	8.4	15	8	5	18	nw.	U. S. Weather Bureau.
Chestnut Hill	do	124	38	29.0	-1.4	60	15	4	7	46	3.78	-0.13	1.09	7.5	15	12	0	19		Met. Water Board.
Clinton	Worcester	370	22	31.7		57	21	6	7	33	3.21	0.00	0.80	8.8	14					Do.
Concord	Middlesex	139	28	29.4	+1.6	59	21	7	7	35	3.19	-0.14	0.99	9.1	15	8	7	16	n.	Fred A. Tower.
Fall River	Bristol	200	52	35.4	+1.2	64	14	11	7	29	4.08	-0.28	1.07	4.9	16	4	19	8	nw.	C. V. S. Remington.
Fitchburg	Worcester	550	35	30.1	+1.6	57	21	5	7	34	3.01	-0.54	0.44	9.5	12	13	2	16	nw.	Dr. A. P. Mason.
Framingham	Middlesex	160	33	32.1	+1.8	59	15	10	7	31	3.73	-0.24	0.95	8.4	12					Met. Water Board.
Lawrence	Essex	51	34	30.3	+1.7	56	21	8	7	31	3.72	+0.35	1.05	14.2	16					Essex Company.
Lowell	Middlesex	100	33	30.0	+1.2	53	21	6	7	27	3.19	-0.55	0.78		11					Props. Locks & Canals.
Nantucket	Nantucket	47	32	38.2	+1.5	57	23	19	7	27	3.65	+0.01	0.81	0.6	16	6	3	22	nw.	U. S. Weather Bureau.
New Bedford	Bristol	88	106																	City Engineer.
Plymouth	Plymouth	50	33	32.4		58	15	8	7	24	4.31		1.10	5.0	10	11	4	16		Miss L. B. Knapp.
Provincetown	Barnstable	40	31	35.3	+0.2	58	23	20	7	19	3.10	-0.56	0.80	2.0	9	0	5	26	sw.	Gideon Bowley.
Rockport	Essex	25	16	34.0		58	15	13	2	20	3.24		0.93	11.5	15	12	0	19	nw.	U. S. C. G. Station.
Rutland	Worcester	1,160	16	29.8		62	15	4	6	34	1.13		0.52	9.3	6	12	4	15	ne.	State Sanatorium.
Springfield	Hampden	199	8	30.7	+2.1	54	23	3	4	41	5.09	+1.57	1.95	8.4	11	7	8	16	nw.	U. S. Army.
Turners Falls	Franklin	200	32	30.0	+4.5	53	23	-2	7	28	3.31	+0.40	0.74	10.2	9	7	6	18		Turners Falls Co.
Westboro	Worcester	298	44	35.2	+5.0	57	15	10	7	26	3.21	-0.39	1.70	6.2	5	8	4	19	w.	Miss E. W. Newcomb.
Williamstown	Berkshire	711	37	30.4	+2.5	55	15	-3	7	33	3.42	+0.42	0.68	10.3	15	8	6	17	nw.	Williams College.
Worcester	Worcester	518	26	31.2	+1.6	54	15	12	7	17	3.15	-0.47	0.54	11.4	16	10	5	16	ne.	G. W. Swan.
Rhode Island.																				
Block Island	Newport	26	38	38.3	+															



Daily Precipitation for December, 1918.

Stations.	Watersheds.	Day of month.																															Total.					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31						
Maine.																																						
Ashland	St. John					*	.58		.13	T.			.20		.40	.10							T.	.34		.58	.12					.06	2.51					
Bar Harbor	Coast		.08	.22	1.20	.01							.31		.11	.10								.15		.80							3.31					
Cornish	Saco	.05	.10		.20		.10	T.	.05			.32		*	.50	.72							.92	.15	*	.87	.04	.03	.05	.37	.28	1.75						
Eastport***	Coast	.01		.13	.20	.34	.05	.02	.12	T.			.30		.20	.27									.30	.07	.14	T.	.02	.01	T.	.07	2.31					
Eustis	Kennebec	.15	T.	.02	.03	T.	T.	T.	.03	.15	.03		.26	T.	.38	.06										.17	.10	.01	.04	.06	T.	.08	2.19					
Farmington	do	.05		.04	.09			.04	.14	T.			.42		.54											.76	.18		.13		T.	.20	3.56					
Gardiner	do	.15		.19	.22	.09			.14		.11		.32	T.	.31	.51	T.							.15	.82	.75	.01	.10	.33	.17		.24	4.13					
Greenville***	Penobscot	.02		.05	.32	.15	.05	.01	.25		.05		.50		.22	.13								.10	.53	.77	.65	T.	.10	.02	.02	.25	3.49					
Houlton	St. John					.40										.27									.40	.25							1.77					
Lewiston	Androscoggin	.04		.15	.19		.10	.04	.11			.06	.26	.07	.43	.57									.06	.75	.22	.55	.08		.27	.16	.11	4.22				
Madison	Kennebec		T.	.20			T.	.02	.16				.28	.52	1.05															*	.25		.31	4.56				
Milbrook	Penobscot		.03	1.19	.11	.02			.15			.18	.03	.26	.20										.01		.66	.11					.26	3.24				
North Bridgton	Saco	.06		T.	.16		.12	.08	.11	.08			.22		.62	.40										.80		.90	.07	T.			.22	3.84				
Orono	Penobscot		.08	.20	1.40	.05							.25		.48	.41										.43		.68	.10		.15			4.23				
Patten	do				.40	.80									.60									*	1.60		.40						3.20					
Portland***	Coast	.02	.04	.11	.28		.10	.01	.05			.33	.31	.23	.34	.15								.02	.66	.23	.41	.69		.19	.14		.22	4.30				
Presque Isle	St. John																																					
Rumford	Androscoggin	.06		T.	.05		.05	T.	.14			.22	.03	.20	.18	.05																						
Van Buren	St. John	T.		T.		1.00	T.		.05	.30			.15		.65	T.									.50	.22	.42	.41	T.	T.		.22		T.	17	2.72		
Winslow	Kennebec	.01		.06	.05	T.	.02	T.	.12	T.			.20	.45	.47											.70		.74	.01		.11			.02	2.56			
New Hampshire.																																						
Alstead Center	Connecticut			.01	.03	T.	.35		T.			.10	.21	.15	.21	.35										.20	.53	.05	.47	.03	T.	T.	T.	.05	2.74			
Berlin	Androscoggin	.01	.06	.02		.07	T.	.02	.20	.03		.25	T.	.25	.07	T.										.20		.47	.09	.02	.04	.24		T.	.29	2.83		
Bethlehem	Connecticut																																					
Concord***	Merrimack	T.	T.	.01	.10		.40	T.	T.	T.		.15	.09	.17	.70	.52										.41	.08	.54	.20	T.	T.	.04	.03	T.	.08	3.52		
Durham	do				.17	.03	.23						.54		.20	.19											.27		.55	.02		.23			.06	2.49		
Franklin	do	T.		.01	.08	.05	.19		.01			.33		*	.90											.79		.70	T.		.05			.14	3.25			
Glencoff	Connecticut		.10	.08		.35		T.	T.			.22			.26	.11										.88		.71	.05		.15		.05	.33	3.29			
Grafton	Merrimack																																					
Hanover	Connecticut	.03		.01	.07	.04	.18		.05	T.	T.	.03	.15	T.	.23	.08										.28	.32	.43	.18	T.	T.	T.	.10	T.	.07	2.25		
Keene	do		.12	.07		.40						.10	.31	.12	.26	.64										.17	.51	.25	.51	T.		T.	T.	.03	3.39			
Newton	Merrimack																																					
Pittsburg (a)	Connecticut	.36			.08	.10	.10	.12	.13	.18	.12		.24		.58	.23										.70		.68	.37	.07	.12		.12	.15	4.45			
Pittsburg (b)	do	.20		.10	.03	.10	.03	.08	.25	.20	.03		.22		.30	.25										.20	.12	.20	.55	.27	.05		.10	.15	4.31			
Plymouth	Merrimack	T.			.25	.08	.18	T.	.07				.37		.48	.15										.16	.72		.56	T.		T.	T.	.15	3.17			
Vermont.																																						
Bloomfield	Connecticut	.13		.06	.03	.03	.05		.18	.04			.11		.44	.12											.82		.40	.26			.04	.02	.16	2.91		
Burlington***	Champlain			.07	.01	.21	T.	.08	T.	T.	T.	.02	T.	.18	.06	.03											.21	.02	.39	.24	.02	T.		.05	.05	T.	.14	1.78
Cavendish	Connecticut			.10		.60			.02			.02	.05	.31	.10	.05	.01										.05	.14	.05	.04					.08	1.62		
Chelsea	do				.12				.06			.06		.12	.68	.10											.30		.35	.45					T.	.08	2.32	
Cornwall	Champlain	.05			.12		.12			T.	T.	.10	T.	T.	.10	T.										.20	.10	.10	.34	T.	T.	.05	.03		.05	1.36		
Enosburg Falls	do	.12		.07	.16	.08	.08	.01	.04	T.	T.	T.	.11	T.	.03	T.													.54	.07		T.	.05	.05	.13	1.54		
Hyde Park	do																																					
Northfield***	Champlain	.06		T.	.16	T.	.14	T.	T.	T.		.01	.01	.18	.09	.10										.32	.05	.67	.22	.01	T.	T.	.01	.01	T.	.20	2.23	
Rutland	do	.02		.03	.05	.14	.20	.01		.02		.06		.17	.16	T.												.62		.26	.04	.01	.02			2.43		
Somerset	Connecticut	.10		.15	.21	.05	.44	.06		.04			.40		.28	.47											1.20		.70	.08	.02				.42	4.20		
St. Johnsbury	do	.11		.02	.06	.07	.10	.01	.08	.01	T.	T.	.15		.42	.17										.14	.46		.76	.02	T.	T.	.01	.02	.18	2.79		
Vernon	do	T.	.04	.03		.17	.01					.33		.40	.78											.78		.62		T.				.30	3.46			
Wells	Champlain				.11	.12			T.			T.			.53	.17										.44		.79	.05	.22		T.	.08		T.	2.51		
Woodstock	Connecticut	.06			.08		.21					.25		.16	.06											.25		.37				.02		.06	1.72			
Massachusetts.																																						
Amherst	Connecticut	.02		.06	T.		.40	T.				.48		.20	.76	.11										.25		.51		.15	T.			.01	2.95			
Ashland	Merrimack		.02	.09		.58		.03				*	.96	*	.20	*	.68									.24		*	.65	.01			.02		.38	3.66		
Bakers Bridge††	do	T.				.80						.12		.87	.60													.15	1.65						3.19			
Bedford	do			.03	.04		.35		.02			.12	.85	T.	.25	.31										T.	.26	.39	.16	.02	T.	T.	.02			2.82		
Blue Hill	Coast			.07	.10		.62	T.	.03			.10	1.12	.04	.22	.65										.07	.45	.36	.42	.02	T.	T.	.04		.05	4.42		
Boston***	do	.01		.03	.13	T.	.42	T.				.42	.60	.09	.18	.34										.08	.17	.55	.12	.02	T.	T.	.03		.03	3.21		
Brockton	Coast		.03	.20	T.	.43	.01	T.				.04	1.11	.01	.16	.35												.38		.76	.02	.02						



### Stations.

Stations.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean		
Maine.																																		
Bar Harbor	Maximum	40	22	33	39	41	37	20	30	36	32	24	35	41	42	50	50	38	30	30	50	53	45	55	51	43	41	29	24	23	35	31	37.3	
	Minimum	17	6	15	29	26	13	7	13	28	18	9	15	29	30	40	31	25	15	12	15	28	30	42	31	33	25	19	16	15	15	5	21.0	
Eastport	Maximum	30	18	34	39	39	23	19	38	32	25	24	36	36	44	50	39	29	25	25	42	45	43	49	38	40	33	19	26	23	28	32	32.8	
	Minimum	10	6	18	25	23	11	10	19	25	15	11	23	31	31	36	29	20	15	15	19	31	36	38	32	33	19	15	12	15	11	4	20.7	
Farmington	Maximum	30	22	30	28	29	23	21	22	38	37	29	32	38	35	45	38	32	26	27	36	44	46	40	42	34	34	26	24	24	29	20	31.6	
	Minimum	12	5	16	18	20	5	6	8	17	12	4	17	17	30	23	14	6	3	6	21	24	34	32	27	24	6	15	0	1	0	14.4		
Gardiner	Maximum	35	23	29	29	31	23	20	22	29	40	31	22	31	35	42	45	41	30	25	27	45	52	40	56	40	35	35	21	17	20	21	31.4	
	Minimum	13	7	20	25	22	7	6	14	12	17	10	1	18	17	30	23	13	8	11	22	21	38	26	30	26	9	16	10	7	2	16.8		
Greenville	Maximum	26	14	28	25	22	10	14	18	32	24	22	26	34	34	43	33	24	20	22	42	47	37	46	46	30	26	20	14	14	22	9	26.7	
	Minimum	6	0	11	16	15	7	6	8	16	11	3	14	25	29	33	26	16	7	9	8	29	29	33	28	25	20	8	9	4	9	6	14.6	
Millinocket	Maximum	19	11	23	21	27	18	15	25	24	20	25	30	37	37	37	37	30	25	24	41	43	36	50	29	30	24	24	16	19	25	5	26.8	
	Minimum	16	1	10	17	23	7	5	7	22	13	9	8	15	25	31	19	8	6	6	1	22	11	34	28	24	18	11	10	10	9	1	12	
Orono	Maximum	49	38	25	28	28	25	17	27	33	33	24	27	36	37	44	42	36	26	25	40	49	49	50	48	37	34	25	20	27	28	28	33.1	
	Minimum	8	2	16	25	24	5	5	13	12	10	4	14	19	29	24	21	19	9	4	4	22	28	19	29	28	24	15	14	11	9	2	14.9	
Portland	Maximum	29	25	33	32	31	23	20	26	40	28	30	32	27	43	49	38	32	27	32	42	50	43	56	40	37	35	26	20	25	33	18	33.4	
	Minimum	14	10	21	28	18	15	11	19	24	17	13	24	26	37	36	32	22	18	18	20	32	33	40	33	34	26	19	16	16	10	22.6		
Presque Isle	Maximum	38	13	13			13	1	20	3	3	1	3	25	22	33	22	2	12	10	10	6	22	34	4	15	6	3	2	0	6	4	18	
	Minimum																																	
Rumford	Maximum	27	22	30	30	30	22	21	24	39	23	22	30	39	36	45	38	32	30	32	36	43	36	50	42	36	36	26	24	20	30	14	31.1	
	Minimum	10	9	19	24	14	12	12	18	24	10	0	20	23	33	34	34	25	11	8	15	27	24	35	30	32	30	22	20	18	11	9	7	18.5
Van Buren	Maximum	8	12	18	22	25	25	12	10	25	22	22	25	33	34	40	36	25	20	21	29	35	38	46	18	23	23	26	12	18	12	18	12	8.3
	Minimum	6	5	4	12	18	10	1	21	10	12	10	2	22	22	33	24	3	15	12	3	9	26	33	28	23	25	12	11	12	8	7	10	
New Hampshire.																																		
Alstead Center	Maximum	30	22	33	35	32	18	16	30	37	30	22	30	35	39	48	37	33	33	32	42	48	46	48	43	37	36	25	23	22	28	25	32.7	
	Minimum	12	7	20	30	18	8	1	11	26	11	6	20	26	32	37	31	22	19	16	22	30	33	41	31	32	25	18	17	13	13	7	20.5	
Bethlehem	Maximum																																	
	Minimum																																	
Concord	Maximum	32	23	34	35	30	25	20	26	40	26	24	35	33	39	46	40	40	33	35	45	53	46	53	39	40	38	30	26	26	33	18	34.3	
	Minimum	10	10	29	30	18	12	8	17	12	8	4	24	21	33	35	31	24	15	10	14	24	26	36	29	34	24	20	21	10	6	8	19.2	
Franklin	Maximum	35	22	32	34	35	26	21	26	40	37	22	37	35	36	44	41	41	35	34	45	56	37	52	47	38	38	30	29	27	32	27	35.2	
	Minimum	15	7	17	24	22	7	2	16	9	16	1	19	14	31	33	23	18	10	5	11	20	22	34	25	33	29	16	21	18	1	2	16.7	
Hanover	Maximum	39	21	33	42	31	22	19	30	38	31	22	39	35	39	41	36	38	38	37	43	46	45	52	42	39	38	26	27	25	30	20	34.1	
	Minimum	6	3	19	29	13	9	1	17	23	10	2	21	22	31	33	23	20	13	9	12	23	24	40	33	33	23	20	19	10	16	2	18.0	
Keene	Maximum	32	27	37	36	32	25	13	32	44	33	24	38	35	39	44	40	39	39	48	48	38	51	49	39	38	28	29	30	34	26	35.6		
	Minimum	16	8	20	28	22	12	8	17	14	12	1	23	27	32	34	26	23	14	9	12	20	22	36	25	33	28	23	19	17	7	9	18.8	
Pittsburg	Maximum	8	24	28	31	27	18	22	23	32	23	22	34	32	38	45	32	32	30	23	38	45	45	42	32	32	32	21	23	20	11	28.5		
	Minimum	6	9	11	22	7	4	2	4	22	6	3	18	22	28	31	24	4	2	1	10	35	42	32	26	27	18	16	6	4	7	15	11.1	
Plymouth	Maximum	30	23	32	36	32	20	20	25	40	32	22	35	33	35	45	41	35	31	30	40	52	37	48	42	37	37	28	28	24	30	25	33.1	
	Minimum	14	7	19	25	18	10	9	17	18	16	1	21	20	31	34	31	22	9	3	9	19	12	34	29	33	27	16	20	15	9	6	17.8	
Vermont.																																		
Burlington	Maximum	27	29	35	32	25	15	7	27	42	17	17	30	38	38	49	50	36	28	27	32	43	47	50	52	33	25	22	17	15	9	27	14	32.1
	Minimum	5	6	29	23	5	7	7	27	17	9	8	30	29	34	36	28	20	18	15	25	36	41	32	25	25	17	8	11	19	13	0	18.9	
Enosburg Falls	Maximum	27	18	33	33	23	12	19	39	38	25	28	42	37	48	53	42	34	32	37													29.8	
	Minimum	6	6	12	22	4	11	7	17	25	9	3	27	27	32	35	28	20	18	13													11.6	
Northfield	Maximum	30	20	36	31	25	17	17	42	41	18	24	37	33	38	44	37	33	32	34	45	50	46	51	35	37	33	21	21	20	26	22	32.3	
	Minimum	2	2	20	24	0	3	1	17	16	1	0	21	27	31	30	20	15	11	9	14	24	29	35	32	33	18	16	4	4	4	15.0		
St. Johnsbury	Maximum	30	18	32	41	34	24	15	28	39	30	20	37	35	42	43	37	38	37	37	42	48	43	52	44	36	34	24	27	21	27	18	33.3	
	Minimum	11	0	17	25	18	0	5	12	27	14	0	20	28	32	35	27	16	15	6	13	19	22	42	32	32	23	17	17	9	4	5	17.2	
Wells	Maximum	28	33	24	35	32	20	20	35	36	30	4	30	35	35	46	48	36	32	28	40	45	50	54	40	38	36	30	20	16	28	30	33.9	
	Minimum	14	20	8	25	20	10	0	15	30	17	8	26	25	32	32	28	15	15	14	20	29	29	30	29	32	30	11	14	8	10	5	19.4	
Massachusetts.																																		
Amherst	Maximum	33	31	35	37	32	28	23	32	41	31	26	38	34	37	43	35	40	40	42	45	52	50	50	42	40	36	28	32	34	35	27	36.5	
	Minimum	17	14	28	27	22	12	8	20	24	14	10	26	26	32	31	31	27	22	15	18	24	28	37	28	35	26	20	19	18	16	22	28.1	
Blue Hill	Maximum	30	27	39	39	33	28	25	33	41	35	28	35	33	49	58	39	31	28	29	43	49	46	49	33	30	32	27	25	32	30	35.3		
	Minimum	15	10	23	33	22	12	7	17	30	14	12	28	27	32	39	32	27	18	16	24	35	32	37	32	30	26	21	18	16	17	14	23.1	
Boston	Maximum	33	32	45	44	37	31	29	40	49	34	35	39	41	59	63	44	38	34															





Number of Species

0 to 1 species
2 to 3 species
4 to 5 species
6 to 7 species
8 to 9 species
10 or more species



## Daily Precipitation for December, 1918—Continued from page 93.

Stations.	Watersheds.	Day of month.																														Total.			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		31		
<i>Rhode Island.</i>																																			
Block Island***	Coast			.04	.25		.12	T.				.48	.72	.05	.46	.25							.21	.40	1.38	.01	.02	T.				.04	4.44		
Bristol	do	T.		.01	.32	.01	.45	*	.02	.01			.69	*		.54							.56	.48	*	1.06	.03			T.		T.	3.62		
Greene	do						.30						.82	*		.74	.03						.05	.80	T.	1.22		.05		T.		T.	3.26		
Hope Valley	do			.03	.41		.30		.08				.78	*	.30	.77	.05						.05	.80	T.	1.22		.05		T.		T.	4.84		
Kingston	do	T.					.30	.05				.33	1.03	.06	.32	.49							.06	.75	.72	.70					T.		T.	4.81	
Pawtucket	do	T.		*	.16	*	.60	T.	.03			*	1.14	*	*	.52							.16	.48	*	.89	.01					T.		T.	4.16
Providence***	do	T.	T.	.05	.11		.46	.02	T.			.57	.14	.03	.23	.17							.16	.29	.79	.06	.01					T.		T.	3.14
<i>Connecticut.</i>																																			
Bridgeport	Coast			.07	.01		.12					.53	.20	.13	.35	.46							.58	.74	.41	.28	.09		T.				.01	3.98	
Canton	Connecticut		.08		T.	T.	.32	T.	T.			.74	*	T.	*	.74							.86		.73		T.	T.	T.	T.				3.47	
Colchester	Coast			.05	T.		.20	T.				*	.98	*	.39	.62							*	1.03	*	.87	T.	T.	T.					4.14	
Cream Hill	Housatonic		.01			.20	.25		.05			.30		.15	.30	1.15							.25	.60	.20	.35	.10	.05	.01					3.97	
Danielson	Coast			.05	.10		.40					T.		1.10	1.25								.65				.05							3.60	
East Hartland			.06			.28						.70		.14	.78								.84		.78		T.	T.	T.				.29	3.87	
Falls Village	Housatonic		.02				.40					.50		.05	.72	.40							.81		.50	.14	.07	.02	T.				.16	3.79	
Hartford**	Connecticut	T.	.02	.03	.03		.58	T.	.01			.51	.13	.07	.30	.52	T.						.62	.12	.59	.02	T.	T.	.01				T.	3.56	
Lake Konomoc†	Coast							.45				.40			1.00	.50							1.20		.91									4.46	
New Haven**	do		.02	.02	T.	T.	.15					.66	.18	.09	.31	.47						1.32	.02	.83	.02	.03	T.		.01				.08	4.21	
New London	do			.05	.12		T.	*	.12			.47	.56			.16						*	.19	1.02	.95	T.								3.64	
N. Grosvenor Dale	do			.07			.47					.77			.27	.68							.57			.58	.02							3.43	
Norwalk	do											.05	.25	.10	.10	.50	T.						.05	.05	.05	.35	T.	T.	T.					2.70	
Southington	do	T.		.05	T.		.15					.05	.25	.10	.10	.50	T.						.05	.05	.05	.35	T.	T.	T.					2.67	
Storrs	Coast						.05						.07	.22	.81	*							*	.84	*	.68	T.						T.	2.67	
Torrington	Housatonic				.05							*	.60	*	*	.77							*	.61	*									3.58	
Voluntown	Coast		.04	.03	.05	.32																													
Waterbury	Housatonic																																		

## Special River Rainfall Stations.

Maine.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							</
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## Daily Evaporation (inches) and Wind Movement (miles).

Gardiner, Me.	Evaporation																																
Dorchester Cen- ter, Mass.	Wind movement																																
	Evaporation																																
	Wind movement																																

|| Observations taken at 6 p. m.

||| Observations taken at 7 a. m.

See temperature and precipitation data in Climatological Tables.

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observations. \*\*\* Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

T. Precipitation is less than 0.01 inch rain or melted snow. Precipitation indicated in that of following day.  
 || Post-office addresses of these stations are as follows: Bakers Bridge, South Lincoln, Mass.; Lake Cochituate and Spot Pond, Metropolitan Water Board, Ashburton Place, Boston, Mass.; Lake Konomoc, New London Water Works, New London, Conn.; Sewall's Falls, Concord, N. H.

## Comparative Data for New England for December.

Year	Temperature.			Precipitation.			Weather.			Wind.			Year.	Temperature.			Precipitation.			Weather.			Wind.								
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.		Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.	Average hourly velocity.	Maximum velocity.	Direction at time of maximum velocity.
1888...	30.3	69	-15	4.46		10	4.6	9	10	12		n.w.	12.2	70	ne.	1904...	18.3	61	-34	2.40	1.77	9	16.1	11	9	11	44	n.w.	10.1	64	n.
1889...	33.8	71	-22	3.09		14	6.7	10	10	11		n.w.	11.4	69	ne.	1905...	23.6	62	-23	3.59	3.45	8	9.3	12	7	12	45	n.w.	9.8	64	n.w.
1890...	21.1	53	-36	4.12		12	13.2	10	10	10		n.w.	12.0	82	ne.	1906...	22.7	55	-30	3.59	2.54	11	15.6	8	6	17	31	n.w.	10.4	63	n.w.
1891...	35.9	67	-8	4.07		11	2.3	12	8	15		n.w.	12.5	63	se.	1907...	30.7	75	-14	4.29	2.51	9	10.2	11	3	12	43	n.w.	10.8	70	s.
1892...	24.9	58	-17	1.32		10	5.1	10	10	11		n.w.	10.8	70	s.	1908...	26.2	68	-33	3.15	2.63	10	11.8	12	8	11	43	n.w.	11.0	74	s.
1893...	25.5	62	-36	2.94		16	20.5	9	9	13		n.w.	12.2	61	w.	1909...	25.5	62	-33	2.91	3.08	6	14.1	15	8	8	49	n.w.	12.0	72	ne.
1894...	27.3	59	-32	3.62		11	16.6	11	10	16		n.w.	11.3	72	n.w.	1910...	21.4	57	-21	2.56	1.92	9	9.8	12	8	11	42	n.w.	11.9	64	n.w.
1895...	29.8	71	-20	3.35		9	5.7	9	9	13		n.	13.9	81	s.	1911...	32.9	68	-13	3.13	3.20	8	6.4	11	7	13	39	n.w.	11.1	67	w.
1896...	24.6	59	-21	1.68	1.78	7	8.7	13	8	10		n.	11.8	80	ne.	1912...	31.7	69	-15	4.34	2.05	8	8.6	13	7	11	50	sw.	11.9	65	s.
1897...	28.4	64	-18	4.78	3.88	13	9.7	7	8	16		n.w.	11.9	55	s.	1913...	31.3	63	-23	3.24	2.52	7	9.5	13	7	11	46	n.w.	11.1	62	w.
1898...	26.4	58	-30	2.43	2.43	9	9.4	11	9	11		n.w.	10.8	72	e.	1914...	24.4	67	-42	3.04	2.82	9	6.9	13	7	11	45	n.w.	11.8	71	ne.
1899...	30.4	68	-16	2.10	1.33	8	3.0	13	8	10		n.w.	11.1	64	s.	1915...	27.4	62	-23	4.34	2.75	11	15.8	10	6	15	39	n.w.	12.3	86	w.
1900...	26.0	61	-28	2.27	2.75	6	6.8	12	9	10		n.w.	10.5	84	e.	1916...	25.9	66	-27	3.37	3.00	11	15.3	13	6	12	49	n.w.	12.8	82	n.w.
1901...	26.9	67	-28	7.59	4.93	12	17.7	10	8	13		n.w.	11.1	77	ne.	1917...	16.7	54	-44	2.66	2.21	6	17.9	14	6	11	46	n.w.	11.4	76	e.
1902...	22.0	63	-30	5.32	2.65	13	24.2	12	7	12		n.w.	10.2	73	ne.	1918...	28.1	64	-21	3.25	1.95	13	11.8	9	6	16	39	n.w.	10.4	60	w.
1903...	21.3	57	-24	3.18	2.75	10	13.0	12	8	11		w.	11.6	69	s.																



U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU

CHARLES F. MARVIN, CHIEF

FEB 12 1919

# CLIMATOLOGICAL DATA

## NEW ENGLAND SECTION

ANNUAL, 1918

BY

JOHN W. SMITH

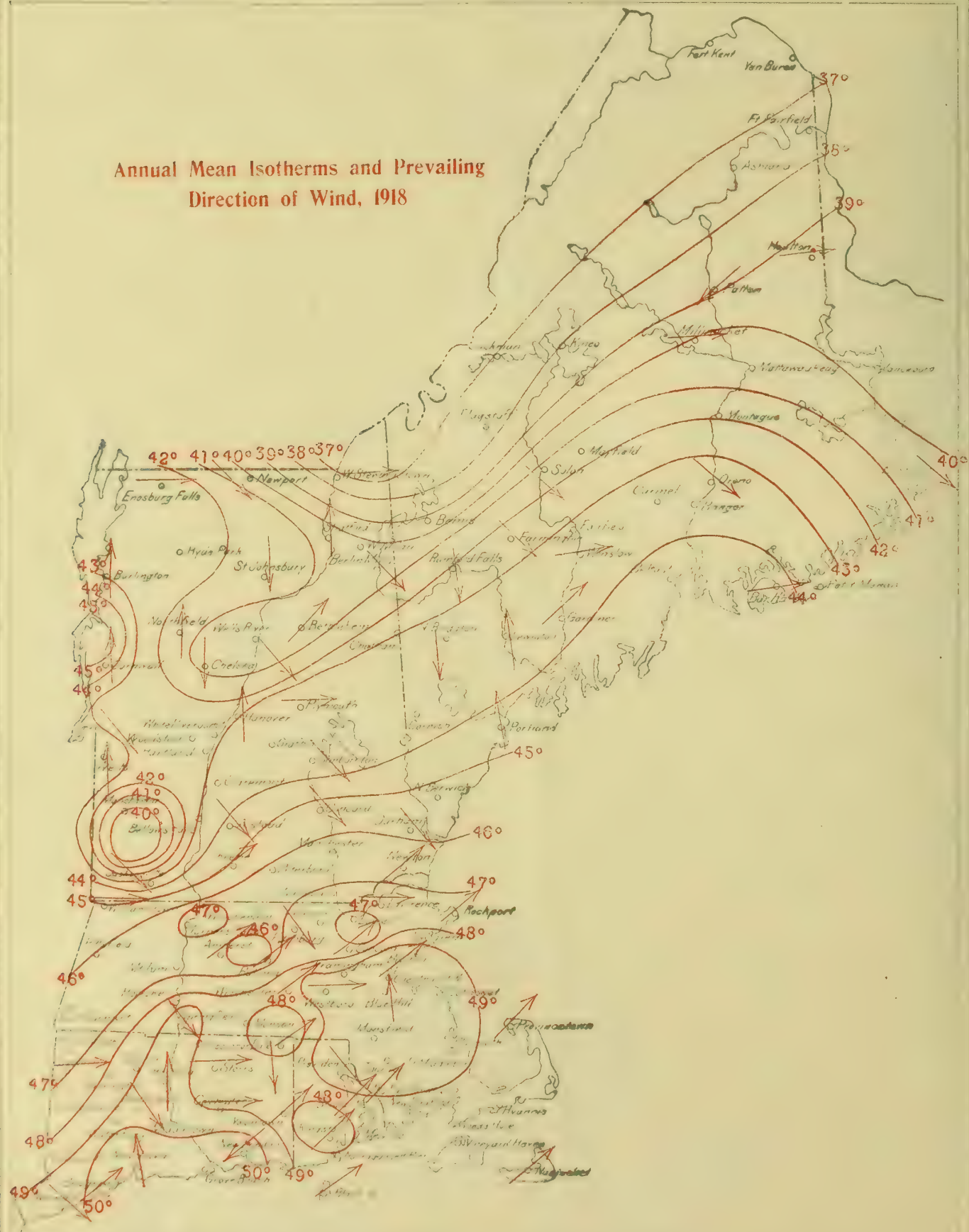
METEOROLOGIST



BOSTON, MASS.  
WEATHER BUREAU OFFICE  
FEBRUARY 7, 1919



Annual Mean Isotherms and Prevailing  
Direction of Wind, 1918





## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

## NEW ENGLAND SECTION.

J. W. SMITH, Meteorologist.

Vol. XXX.

BOSTON, MASS., ANNUAL, 1918.

No. 13.

## GENERAL SUMMARY.

The annual mean temperature (entire district),  $44.9^{\circ}$ , was  $0.7^{\circ}$  below the normal, based on stations having ten or more years' records, and  $1.5^{\circ}$  above the mean of the year 1917.

Annual means by States: Maine,  $41.6^{\circ}$ ; New Hampshire,  $42.9^{\circ}$ ; Vermont,  $42.5^{\circ}$ ; Massachusetts,  $47.7^{\circ}$ ; Rhode Island,  $48.5^{\circ}$ ; Connecticut,  $48.9^{\circ}$ .

The highest annual mean,  $49.2^{\circ}$ , at Bridgeport, Conn.; lowest annual mean,  $36.5^{\circ}$ , at Van Buren, Me. Highest recorded,  $104^{\circ}$ , at Turners Falls, Mass. on July 28; lowest recorded,  $-44^{\circ}$ , at Pittsburg, N. H. on January 28. Annual range for New England,  $148^{\circ}$ ; greatest local annual range  $134^{\circ}$ , at Bloomfield, Cavendish, Enosburg Falls, Vt.; least local annual range,  $94^{\circ}$ , at Nantucket, Mass.; greatest local daily range,  $67^{\circ}$ , at Pittsburg, N. H. on February 21.

The annual average precipitation (entire district), 38.97 inches, was 2.47 inches below the normal, based on stations having ten or more years' records, and 0.66 inch below the average for the year 1917.

Annual State averages: Maine, 41.57 inches; New Hampshire, 37.71 inches; Vermont, 38.64 inches; Massachusetts, 37.31 inches; Rhode Island, 36.57 inches; Connecticut, 40.78 inches.

The greatest annual amount, 51.90 inches, at Bar Harbor, Me.; least annual amount, 27.19 inches, at Houlton, Me. Greatest local monthly amount, 10.65 inches, at Rockport, Mass. in September; least monthly amount, 0.30 inch, at Patten, Me. in March; greatest amount in any 24 consecutive hours, 4.00 inches, at Danielson, Conn. on June 22. Average number of days with 0.01 inch or more, 123.

Average annual mean pressure, 30.01 inches. Highest recorded, 30.79 inches, at Concord, N. H. and Northfield, Vt. on December 19; lowest recorded, 28.58 inches, at Burlington, Vt. on January 15, and Amherst, Mass. on February 26. Annual range for New England, 2.21 inches.

Prevailing direction of wind, northwest; maximum velocity, south, 102 miles per hour, on February 26, at Blue Hill, Mass.

## THE WEATHER BY MONTHS.

**JANUARY.**—The month was extremely cold, with more than the average snowfall. The average temperature was the lowest of any January, and also of any month in the record of the section, beginning in 1888. At Amherst, Mass., with records extending back to 1836, the average temperature of the month was lower than that of any month previously recorded. The snowfall accumulated to between 3 and 5 feet in depth in the interior of the northern portion of the section, but in the southeastern coast sections it was light, and the ground bare during part of the month.

**FEBRUARY.**—Extreme cold weather continued during the first week, followed by seasonable temperatures until the beginning of the last decade, when a brief period of zero temperatures again occurred; the month closed with normal temperatures. The snow on the ground, which had accumulated to between 3 and 6 feet in depth in the interior of the northern portion of the section, gradually diminished during the month, and at the close little or none remained in the southern States.

**MARCH.**—The temperature was below the normal during the first half of the month, with frequent occurrence of minimum temperatures near or somewhat below zero in the northern States of the section; the last half of the month was warmer than usual.

The precipitation was less than normal and was confined to the first half of the month. Owing to the gradual melting of the snow no spring floods occurred.

**APRIL.**—The conditions were generally seasonable. The temperature averaged slightly above the normal. The precipitation, however, was somewhat below the normal, except in Connecticut, Rhode Island and southeastern Massachusetts, where it was near the normal. Snow, to a depth of more than three inches, fell over the greater portion of the section on the 12-13th, and to a depth of from 8 to 12 inches in some localities, where it was the heaviest storm of the winter.

**MAY.**—May was warmer than usual, the average temperature, with one exception, being the highest of record for the month. The rainfall was well distributed through the month, and was somewhat below normal, except in scattered localities. The high temperature and generally sufficient rainfall were very favorable for vegetation, which, at the close of the month, was from ten days to two weeks further advanced than for several years past at this date.

**JUNE.**—Warm and seasonable weather prevailed during the first four days, but afterward the temperature was generally below the normal. An unusually late killing frost occurred on the 20th and 21st, which did great damage to tender vegetation over a large portion of the section, particularly in low places. Great damage was done to the cranberry crop on dry bogs, and it was estimated that one-third of the prospective crop was destroyed. The rainfall was somewhat above the normal. Vegetation, where not damaged by frost, made slow progress.

**JULY.**—The weather continued cold for the season during the first half of the month, but during the last half was warmer than usual. The rainfall was below the normal, except in Maine. Showers were of frequent occurrence in the northern portion of the section through the month, and in the southern portion during the first and second decades. In a few localities damage was caused by hailstorms.

**AUGUST.**—The average temperature was somewhat above the normal. The rainfall was near the normal in the northern States, but was deficient in the southern portion of the section. There was local damage by frost on the 18th in some places in the interior of the northern States.

**SEPTEMBER.**—The month was marked by an unusually heavy rainfall and low temperature for the season. With two exceptions, the rainfall was the greatest of record for this month. Except in the southeastern portion of Massachusetts, where it was below the normal, the monthly totals exceeded 5 inches at nearly all stations, and at some stations more than ten inches fell. The average temperature, with one exception, was the lowest of record for the month. Killing frost was general in the northern portion of the section on the 11th, but only scattered light frosts occurred in the southern portion. Snow fell in the White Mountains on the 22d.

**OCTOBER.**—For the section as a whole, the month was warmer than usual, and deficient in precipitation. The closing days were exceptionally warm, the temperature on the 29th rising to  $80^{\circ}$  at scattered stations. Minima of  $20^{\circ}$  to  $24^{\circ}$  occurred in the northern, and near or slightly below the freezing point in the southern portion of the section, about the 20th of the month. Several inches of snow fell in the northern parts of New Hampshire and Maine on the 18-19th.

**NOVEMBER.**—The average temperature was somewhat above normal. The precipitation, as a whole, was somewhat below normal, with monthly totals between 2 and 4 inches over the greater portion of the section. Snow fell in moderate amounts during the last half of the month in northern Vermont, New Hampshire and Maine, accumulating to between 6 and 11 inches in depth in some localities. There was little or no frost in the ground, and the moderate conditions were favorable for outdoor work.

**DECEMBER.**—Moderate conditions for the season continued



through December. Temperatures of zero or below occurred only in scattered localities in the northern portion of the section and on only a few days. The precipitation was normal. There was an average snowfall, which fell in moderate amounts during the first half and the last week of the month.

## MONTHLY EVAPORATION AND WIND MOVEMENT.

Stations.	May.	June.	July.	Aug.	Sept.	Oct.
<i>Gardiner, Me.:</i>						
1918 Evaporation .....	5.03	5.74	4.58	5.01	2.90	1.63
(Wind) .....	2.349	1,802	1,419	1,491	1,663	1,985
<i>Dorchester Center, Mass.:</i>						
1918 Evaporation .....	4.55			3.44	2.59	
(Wind) .....	1,151			323	524	

NOTE.—Description of evaporation stations may be found in the August, 1917, Monthly Bulletin.

## KILLING FROSTS.

Stations.	Last in spring.	First in autumn.	Stations.	Last in spring.	First in autumn.
<i>Maine.</i>			<i>Massachusetts. — Continued.</i>		
Bar Harbor .....	May 5	Nov. 2	Blue Hill .....	Apr. 20	Nov. 3
Cornish .....	May 5	Sept. 23	Boston .....	Apr. 12	Nov. 12
Eastport .....	Apr. 25	Nov. 9	Chestnut Hill .....	Apr. 28	Sept. 25
Farmington .....	June 21	Sept. 11	Clinton .....	Apr. 20	Oct. 8
Gardiner .....	May 5	Oct. 8	Concord .....	Apr. 28	Sept. 25
Greenville .....	May 5	Sept. 11	Fall River .....	Apr. 20	Nov. 12
Houlton .....	June 21	Sept. 11	Fitchburg .....	Apr. 20	Oct. 8
Lewiston .....	Apr. 27	Oct. 8	Frankingham .....	Apr. 27	Oct. 9
Madison .....	May 16	Sept. 11	Lawrence .....	Apr. 26	Oct. 9
Millinocket .....	June 21	Sept. 11	Lowell .....	Apr. 26	Oct. 8
North Bridgton .....	May 5	Sept. 11	Nantucket .....	Apr. 11	Nov. 26
Orono .....	May 5	Sept. 11	New Bedford .....		
Portland .....	Apr. 20	Nov. 6	Plymouth .....	Apr. 20	
Presque Isle .....	May 24		Provincetown .....	Apr. 20	Oct. 28
Rumford Falls .....	May 5	Oct. 2	Rockport .....	Apr. 20	Nov. 12
Van Buren .....	June 19	Aug. 28	Turners Falls .....	Apr. 26	Oct. 14
Winslow .....	May 5	Sept. 25	Westboro .....	Apr. 26	Oct. 8
<i>New Hampshire.</i>			Williamstown .....	Apr. 27	Oct. 8
Alstead Center .....	Apr. 25	Oct. 4	Worcester .....	Apr. 13	Nov. 4
Bethlehem .....	June 20	Sept. 11	<i>Rhode Island.</i>		
Concord .....	Apr. 27	Sept. 23	Block Island .....	Apr. 6	Nov. 26
Durham .....	Apr. 28	Sept. 11	Bristol .....	Apr. 13	Nov. 12
Franklin .....	June 20	Sept. 11	Kingston .....	Apr. 20	Nov. 3
Glencoff .....	June 20	Sept. 11	Narragansett Pier .....	Apr. 20	
Grafton .....	June 21		Providence .....	Apr. 20	Nov. 4
Hanover .....	June 20	Sept. 11	<i>Connecticut.</i>		
Keene .....	June 10	Sept. 11	Bridgeport .....	Apr. 13	Nov. 7
Newton .....	June 21	Sept. 11	Canton .....	Apr. 27	Oct. 2
Plymouth .....	June 20	Sept. 11	Colchester .....	Apr. 27	Oct. 8
<i>Vermont.</i>			Cream Hill .....	Apr. 26	Oct. 8
Bloomfield .....	June 21	Sept. 11	Danielson .....	Apr. 27	Oct. 8
Burlington .....	May 5	Oct. 4	Hartford .....	Apr. 20	Nov. 4
Chelsea .....	June 21	Aug. 15	New Haven .....	Apr. 13	Nov. 7
Cornwall .....	May 5	Oct. 8	New London .....	Apr. 13	Sept. 24
Enosburg Falls .....	June 20	Sept. 11	N. Grosvenor Dale .....	June 21	
Northfield .....	June 20	Sept. 10	Norwalk .....	Apr. 26	Oct. 20
Somerset .....	June 20	Sept. 24	Southampton .....	Apr. 27	Oct. 8
St. Johnsbury .....	June 20	Sept. 11	Storrs .....	Apr. 26	Oct. 19
Wells .....	June 20	Sept. 11	Torrington .....	May 2	Oct. 2
Woodstock .....	June 21	Sept. 11	Voluntown .....	June 21	Sept. 12
<i>Massachusetts.</i>			Waterbury .....	May 2	Oct. 13
Amherst .....	Apr. 27	Oct. 8			

## MONTHLY AVERAGES AND EXTREMES, 1918.

Year	Temperature.			Precipitation.			Weather.			Wind.		
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.
Jan....	13.2	54	-44	2.89	2.12	10	20.0	13	8	10	49	nw.
Feb....	18.2	62	-41	2.72	2.50	11	11.5	10	7	11	50	sw.
March...	34.5	74	-34	2.05	1.79	8	14.1	16	7	8	62	nw.
April...	44.1	89	5	2.84	3.25	9	3.6	14	6	10	56	ne.
May....	59.3	95	23	2.79	1.65	11	0	13	9	9	57	sw.
June....	68.7	95	26	3.72	4.00	8	0	13	8	9	60	sw.
July....	68.8	104	35	3.46	2.95	11	0	12	10	9	59	sw.
Aug....	68.0	102	32	2.94	3.22	9	0	16	8	7	61	sw.
Sept....	56.8	91	23	2.87	3.96	13	0	10	8	12	48	sw.
Oct....	50.9	82	19	2.89	2.80	10	0	13	7	11	48	s.
Nov....	38.9	70	-2	2.77	3.41	10	1.2	10	8	12	42	nw.
Dec....	28.1	61	-21	3.25	1.95	13	11.8	9	6	16	39	nw.
Means	45.0	104	-44	39.14	4.00	123	62.2	149	92	124	53	sw.

## COMPARATIVE DATA FOR NEW ENGLAND.

Year.	Temperature.			Precipitation.			Weather.			Wind.		
	Mean.	Highest.	Lowest.	Average.	Greatest amount in 24 hours.	Number days with .01 inch or more.	Average snowfall.	Clear days.	Partly cloudy days.	Cloudy days.	Percentage of possible sunshine.	Prevailing direction.
1888....	44.3	101	-44	56.19	147	75.4	109	131	126	115	146	nw.
1889....	48.6	98	-44	49.37	138	44.4	104	115	146	115	146	sw.
1890....	46.3	100	-36	50.33	147	59.6	107	123	135	115	146	nw.
1891....	47.4	101	-30	44.95	133	53.0	116	121	128	115	146	nw.
1892....	45.8	102	-30	38.79	127	53.2	124	110	102	115	146	nw.
1893....	44.6	102	-39	40.14	136	90.2	126	113	126	115	146	sw.
1894....	46.7	106	-42	35.85	127	80.9	122	114	129	115	146	sw.
1895....	46.1	100	-29	41.27	122	45.0	130	115	120	115	146	sw.
1896....	47.4	100	-27	40.97	8.31	127	67.9	121	112	133	45	sw.
1897....	46.4	102	-29	46.79	8.11	122	64.7	131	100	134	47	sw.
1898....	47.2	103	-39	50.66	6.22	129	86.1	130	102	133	48	nw.
1899....	46.1	101	-32	40.40	6.50	110	69.3	153	98	114	55	nw.
1900....	47.5	105	-30	45.69	5.75	106	66.1	152	103	109	56	nw.
1901....	45.6	104	-31	47.92	5.29	114	56.5	144	90	131	53	nw.
1902....	46.0	96	-30	46.94	4.43	121	67.9	143	98	123	51	nw.
1903....	45.8	100	-37	41.78	5.15	110	49.2	157	98	119	60	nw.
1904....	42.8	98	-41	40.05	6.15	116	79.5	153	95	118	56	nw.
1905....	44.4	98	-45	36.96	5.19	106	53.1	157	96	112	60	nw.
1906....	46.4	102	-36	40.55	5.19	111	70.1	151	94	120	54	sw.
1907....	44.1	106	-45	43.24	5.51	117	80.5	137	102	126	50	nw.
1908....	46.7	101	-39	35.62	5.23	102	53.4	171	93	102	57	nw.
1909....	46.0	100	-32	40.56	5.26	112	55.6	153	99	113	51	nw.
1910....	46.5	99	-31	35.52	5.04	111	53.6	154	98	114	52	nw.
1911....	46.5	106	-33	38.76	6.64	112	55.2	154	91	116	53	nw.
1912....	45.4	101	-39	41.88	4.88	119	54.9	161	95	110	56	nw.
1913....	48.0	102	-36	40.52	4.99	109	29.8	161	86	118	54	sw.
1914....	45.0	99	-44	35.07	5.72	104	58.3	154	95	110	53	nw.
1915....	46.8	96	-38	40.51	4.86	115	46.0	148	99	114	52	nw.
1916....	45.2	106	-34	40.50	6.72	130	60.3	153	89	124	52	nw.
1917....	43.2	102	-44	39.80	4.15	123	74.4	147	89	129	52	nw.
1918....	45.0	104	-41	39.14	4.00	123	62.2	149	92	124	53	sw.
Means	46.0	106	-45	42.34	8.31	120	62.4	140	103	122	53	nw.

## SUPPLEMENTAL RAINFALL DATA, 1918.

Stations.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Anl.
<i>Maine.</i>													
Ashland .....	2.47	5.17	0.90	1.40	4.86	3.38	5.26	.....	.....	8.92	3.59	2.51	.....
Brownville .....	.....	.....	1.70	1.61	2.51	.....	.....	.....	6.02	5.92	3.20	.....	.....
Eustis .....	1.81	2.18	2.28	1.22	3.65	2.35	3.74	1.95	5.98	6.39	3.16	2.19	36.90
Mattawamkeag .....	.....	.....	.....	1.68	2.43	.....	.....	.....	6.85	5.22	4.60	.....	.....
Wypoclock .....	2.69	1.86	1.16	1.11	2.72	4.46	4.03	1.62	6.52	3.84	4.41	2.28	36.70
<i>New Hampshire.</i>													
Brookline .....	2.01	2.08	1.70	4.10	1.93	.....	.....	.....	8.44	2.48	2.17	.....	.....
Franklin Junction .....	.....	.....	1.00	2.17	2.28	.....	.....	.....	6.41	5.16	1.79	1.13	.....
Lancaster .....	1.42	2.60	2.06	1.55	3.17	.....	.....	.....	6.36	6.00	2.88	.....	.....
Manchester .....	.....	.....	2.19	2.39	1.71	.....	.....	.....	7.65	8.33	3.81	4.31	51.61
Pittsburg .....	1.38	4.62	3.42	1.34	4.32	4.27	5.13	2.43	7.65	1.45	2.38	.....	.....
Sewall's Falls .....	.....	.....	1.58	2.49	2.93	.....	.....	.....	6.33	8.02	2.14	1.93	.....
West Stewartstown .....	2.19	1.76	3.55	0.47	2.79	.....	.....	.....	.....	.....	.....	.....	.....
<i>Vermont.</i>													
Bellows Falls .....	.....	.....	2.27	3.03	4.96	.....	.....	.....	7.26	1.74	2.80	.....	.....
Wells River .....	2.42	2.18	1.40	2.86	2.64	3.26	3.30	2.74	5.46	5.50	3.68	2.82	38.26
White River Junction .....	2.79	2.55	1.96	2.51	3.00	3.63	1.33	3.56	5.92	2.43	1.80	2.33	33.86
<i>Massachusetts.</i>													
Ashland .....	3.30	3.35	2.54	4.34	1.28	3.26	4.28	1.55	8.70	1.04	2.40	3.66	39.70
Bakers Bridge .....	2.52	1.84	2.77	2.32	2.56	3.50	4.22	1.79	8.20	0.95	2.74	3.19	36.66
Bedford .....	2.34	2.45	2.52	2.47	2.31	3.03	3.39	2.48	7.74	1.16	2.38	2.82	35.04
Brockton .....	.....	.....	2.54	4.04	2.54	.....	.....	.....	10.27	0.96	2.18	3.51	.....
Haverhill .....	2.23	1.93	1.94	3.19	2.03	3.50	7.13	2.25	7.58	1.34	2.70	2.05	37.87
Hingham .....	3.15	3.12	1.84	3.85	3.79	2.05	4.03	1.64	10.63	1.02	2.22	3.08	40.42
Holyoke .....	2.17	.....	3.40	2.47	2.49	.....	.....	.....	1.22	2.70	.....	.....	.....
Ipswich .....	3.38	2.41	2.99	3.54	1.10	3.80	2.08	1.71	1.93	1.24	1.67	3.95	29.80
Jefferson .....	3.25	5.27	3.07	3.58	0.86	4.73	3.67	3.05	6.61	2.05	3.47	4.08	42.69
Lake Cochituate .....	3.26	3.80	2.18	4.61	1.10	3.34	3.64	1.41	9.58	0.92	2.57	3.55	38.96
Leominster .....	3.02	3.38	2.26	1.95	2.73	4.37	3.17	2.19	7.07	1.09	2.88	3.30	37.41
Princeton .....	2.42	3.27	1.66	3.33	1.16	4.33	2.29	2.75	6.39	1.46	2.82	3.54	45.52
Somerset .....	3.33	2.88	2.52	4.09	1.72	2.40	3.16	2.08	3.81	0.90	2.02	2.74	31.65
Spot Pond .....	3.56	3.51	2.46	4.31	1.37	2.67	3.63	3.18	9.42	1.13	2.05	4.17	40.46
Sterling .....	2.67	4.51	1.97	3.15	1.17	3.96	2.13	2.02	6.94	1.26	3.25	3.86	37.89
Taunton .....	5.91	3.49	2.44	4.86	1.83	2.99	6.83	2.69	8.89	0.89	2.52	4.14	47.48
Winchendon .....	2.77	3.22	2.29	2.46	2.73	4.92	2.06	2.71	8.50	1.67	2.91	3.76	40.20
<i>Rhode Island.</i>													
Greene .....	3.34	3.55	1.92	4.38	2.66	5.05	4.12	3.43	8.11	1.10	2.38	3.26	43.30
Hope Valley .....	3.91	3.50	5.32	5.32	3.51	4.69	3.74	4.48	6.85	1.82	3.47	4.84	49.49
Pawtucket .....	3.71	2.86	2.43	4.55	2.42	3.08	3.52	2.34	8.82	0.63	2.27	4.16	40.75
<i>Connecticut.</i>													
East Hartland .....	4.41	2.39	2.65	3.94	3.40	3.41	2.44	4.86	5.48	1.27	2.94	3.87	41.06
Falls Village .....	3.01	2.73	2.53	4.05	3.93	2.90	5.65	3.59	5.55	1.68	2.41	3.79	41.82
LakeONOMOC .....	3.72	4.85	2.34	4.89	4.28	4.49	2.68	2.04	9.18	1.50	4.11	4.46	48.54



## Climatological Data for the Year 1918.

Stations.	Counties.	Elevation, feet.	Temperature (degrees Fahrenheit).						Precipitation (inches).						Sky.				Prevailing direction of wind.	
			Length of record, years.	Annual mean.	Highest.	Date.	Lowest.	Date.	Length of record, years.	Total for the year.	Greatest monthly.	Month.	Least monthly.	Month.	Total snowfall.	Number rainy days.	Number clear days.	Number partly cloudy days.		Number cloudy days.
Maine.																				
Bar Harbor	Hancock	20	32	44.8	91	June 2*	-14	Feb. 5	32	51.90	9.77	Sept.	1.14	May	89.6	127	232	56	77	w.
Cornish	York	778	63				-30	Jan. 2	63						75.5					
Eastport	Washington	53	46	40.3	85	June 2	-16	Feb. 5*	46	32.70	4.65	Sept.	1.50	May	85.7	146	97	106	162	n.w.
Farmington	Franklin	450	21	42.1	94	July 27	-28	Jan. 3	28	45.67	8.98	Sept.	1.91	Mar.	76.0	129	141	93	131	n.w.
Gardiner	Kennebec	163	26	43.6	93	July 27*	-32	Jan. 28	26	45.42	7.98	Sept.	1.16	Mar.	86.5	144	174	47	144	sw.
Greenville	Piscataquis	1,140	14	39.1	90	July 23	-29	Feb. 5	14	44.39	8.25	July	1.42	Aug.	100.2	172	130	71	164	sw.
Houlton	Aroostook	362	16	39.9	92	July 28	-34	Jan. 3	16	27.19	5.15	Sept.	0.39	May	79.0	66	177	79	109	w.
Lewiston	Androscoggin	185	35	42.8	94	Aug. 14	-21	Feb. 9	45	45.89	7.70	Sept.	1.35	Mar.	73.4	137	136	126	103	s.
Madison	Somerset	257	15	41.1	95	July 28	-36	Jan. 3	15	45.34	7.13	Sept.	1.82	Mar.	82.5	125	192	61	112	n.w.
Millinocket	Penobscot	386	15	40.0	92	July 27	-34	Jan. 3	15	48.21	7.73	July	1.85	Apr.	101.2	134	166	31	168	n.
North Bridgton	Cumberland	450	25	43.5	94	July 27	-27	Jan. 3	25	45.28	8.72	Sept.	1.34	Mar.	78.0	142	149	75	141	n.
Orono	Penobscot	129	49	42.9	92	July 24	-22	Jan. 2	50	40.20	6.89	July	1.65	Mar.	95.8	109	210	82	73	n.w.
Patten	do	550	16	38.9	98	Aug. 21*	-35	Jan. 2	16	38.45	9.60	July	0.30	Mar.	55.5					n.e.
Portland	Cumberland	99	47	44.2	94	July 23	-14	Feb. 5	75	38.45	5.58	Sept.	1.76	May	64.7	154	122	160	143	s.
Presque Isle	Aroostook	1,000	9				-36	Feb. 2	9											
Rumford	Oxford	505	25	42.8	93	July 27	-24	Jan. 3	25	41.21	7.74	Sept.	1.39	Mar.	91.3	124	183	78	104	n.w.
Van Buren	Aroostook	510	14	36.5	90	July 27	-40	Jan. 3*	14	37.00	5.41	June	0.71	Aug.	104.1					
Winslow	Kennebec	90	23	43.8	94	July 21	-27	Jan. 2	23	37.81	6.66	Sept.	0.74	Mar.	63.2	160	173	83	109	w.
New Hampshire.																				
Alstead Center	Cheshire	1,120	14	44.6	96	Aug. 7	-22	Feb. 5	14	37.34	8.55	Sept.	1.56	July	96.0	128	206	51	108	n.w.
Berlin	Coos	1,090	21	40.4	94	July 27	-35	Jan. 2*		38.57	6.03	Sept.	1.79	Apr.	86.6	169	100	114	151	n.w.
Bethlehem	Grafton	1,470	26		91	July 22	-28	Feb. 5	26											sw.
Concord	Merrimack	350	57	45.0	95	July 2*	-16	Feb. 5	58	31.87	6.96	Sept.	1.14	Oct.	70.9	131	172	86	107	n.w.
Durham	Durham	88	23	45.5	95	Aug. 16	-16	Feb. 5	24	31.21	6.43	Sept.	0.73	Oct.	49.5	88	175	60	130	n.w.
Franklin	Merrimack	440	19	43.8	97	Aug. 14	-23	Jan. 3	19	39.05	8.25	Sept.	1.84	May	73.9	116	125	80	160	n.w.
Glencuff	Grafton	1,650	5	40.4	91	July 22	-28	Feb. 5*	9	44.87	6.96	Sept.	2.03	Apr.	91.6	127	164	78	123	n.w.
Grafton	do	863	32																	
Hanover	do	603	84	43.4	97	Aug. 7	-32	Jan. 3	78	34.52	6.18	Sept.	1.44	Mar.	65.2	147	71	116	178	s.
Keenes	Cheshire	506	33	44.9	99	Aug. 7	-28	Jan. 2	31	37.37	7.01	Sept.	1.52	Oct.	67.5	122	157	89	119	sw.
Newton	Rockingham	126	30		95	July 23*	-21	Feb. 2	30											sw.
Pittsburg	Coos	1,575	1	36.9	88	July 23	-44	Jan. 28	1	45.28	8.74	Oct.	1.38	Jan.	122.2	128	141	66	158	w.
Plymouth	Grafton	500	30	44.5	92	July 21	-30	Jan. 3	31	37.04	7.57	Sept.	1.26	Mar.	72.5	120	173	43	149	w.
Vermont.																				
Bloomfield	Essex		11	41.4	95	July 22	-39	Jan. 2	10	45.33	8.20	Oct.	1.28	Mar.	84.4	175	113	122	130	s.
Burlington	Chittenden	404	11	42.8	91	Aug. 7	-24	Jan. 28	12	42.18	6.75	Oct.	1.67	Apr.	76.0	157	77	110	178	s.
Cavendish	Windsor	910	15	42.8	99	Aug. 7	-35	Jan. 2*	15	37.40	7.14	Sept.	1.08	Mar.	67.5	151	173	71	119	n.
Chelsea	Orange	840	23	40.7	94	July 22	-35	Jan. 2	23	33.75	5.18	Sept.	1.37	Feb.	75.0	105	124	66	174	n.
Cornwall	Addison	517	25	45.2	100	Aug. 7	-24	Feb. 5	33	37.22	7.03	Sept.	1.25	Apr.	83.5	125	155	92	118	n.
Enosburg Falls	Franklin	601	27	42.9	94	July 22	-40	Jan. 28	27	43.12	9.69	Sept.	0.91	Apr.	123.5	154	160	92	108	w.
Hyde Park	Lamoille	576	6		95	July 22			6											n.w.
Northfield	Washington	876	32	41.1	96	Aug. 7	-33	Jan. 2	32	37.15	6.71	Aug.	1.43	Mar.	83.1	149	54	122	189	s.
Rutland	Rutland	562	2	42.5	97	Aug. 7	-25	Jan. 28	2	36.57	6.76	Sept.	1.44	Mar.	53.2	152	158	86	121	n.w.
Somerset	Windham	2,096	7	38.8	88	July 22*	-31	Jan. 1*	7	46.77	6.10	Sept.	2.30	July	88.3	174	146	130	87	n.w.
St. Johnsbury	Caledonia	711	25	43.4	97	July 22*	-35	Jan. 2	25	39.06	7.60	Oct.	1.48	Apr.	71.0	171	131	104	130	n.
Vernon	Windham	310	3	45.4	102	Aug. 7	-27	Jan. 2	2	32.21	6.70	Sept.	0.90	July	51.7	109	127	110	128	n.
Wells	Rutland	750	27	43.2	95	Aug. 7	-24	Feb. 5	27	37.70	7.55	Sept.	1.34	Mar.	46.0	106	113	136	116	s.
Woodstock	Windsor	700	26	42.8	96	Aug. 7	-32	Jan. 2	26	33.98	7.14	Sept.	1.36	July	78.5	100	132	75	158	n.
Massachusetts.																				
Amherst	Hampshire	222	29	46.9	100	July 22*	-22	Feb. 2	29	37.48	7.00	Sept.	1.32	Oct.	50.7	123	158	107	100	sw.
Blue Hill	Norfolk	640	34	46.7	93	July 23	-14	Feb. 5	34	44.86	9.36	Sept.	1.15	Oct.	61.5	138	119	108	138	sw.
Boston	Suffolk	124	48	49.8	98	July 23	-10	Feb. 5	48	34.40	9.19	Sept.	0.99	Oct.	44.9	126	111	120	134	s.
Chestnut Hill	do	124	38		96	July 23*	-14	Feb. 5	46	39.41	9.34	Sept.	1.17	May	43.1	126	240	0	125	n.
Clinton	Worcester	370	22	47.4	63	Aug. 7	-16	Feb. 2	19	40.00	8.35	Sept.	1.19	May	52.4	119				n.w.
Concord	Middlesex	139	28	46.3	94	July 22*	-25	Feb. 2	28	38.54	8.86	Sept.	0.96	Oct.	52.7	131	112	130	123	sw.
Fall River	Bristol	200	52	49.3	93	July 23	-10	Feb. 5	52	39.17	5.51	Apr.	1.08	Oct.	37.7	118	90	240	35	sw.
Fitchburg	Worcester	550	35	47.3	95	July 22	-15	Feb. 5	35	36.97	7.53	Sept.	1.03	Oct.	59.0	111	178	67	120	n.w.
Framingham	Middlesex	160	33	49.2	96	July 22*	-14	Feb. 2	39	40.72	8.29	Sept.	1.03	May	45.7	112				w.
Lawrence	Essex	51	34	47.4	97	July 23	-22	Feb. 2	34	42.17	7.97	Sept.	1.27	Oct.	68.3	139	101	196	68	w.
Lowell	Middlesex	100	33	47.8	94	July 23*	-25	Feb. 2	64	35.44	7.71	Sept.	0.89	Oct.		110				sw.
Nantucket	Nantucket	47	32	48.4	88	July 21*	-6	Feb. 5	32	28.57	3.84	Apr.	1.44	May	26.2	119	113	106	146	sw.
New Bedford	Bristol	88	106						104											
Plymouth	Plymouth	50	33						28											
Provincetown	Barnstable	40	31	48.9	92	June 2	-6	Feb. 5	32	30.44	3.59	Sept.	0.94	Oct.	37.0	91	180	71	114	sw.
Rockport	Essex	25	16	47.0	91	Aug. 14	-12	Feb. 5	19	34.54	10.65	Sept.	1.16	Oct.	53.5	124	182	59	124	sw.
Rutland	Worcester	1,160	16	45.8	94	July 22*	-20	Feb. 4	16	38.22	6.81	Sept.	1.08	May	61.2	121	178	84	103	sw.
Springfield	Hampden	199	8	49.2	102	Aug. 7	-12	Feb. 5	8	35.05	5.40	Sept.	0.68	Oct.	33.7	104	106	114	145	n.w.
Turners Falls	Franklin	200	32	47.2	104	July 28	-25	Jan. 2	27	35.32	5.01	Sept.	1.23	Oct.	74.7	90	138	76	151	n.
Westboro	Worcester	298	44		94	July 23	-12	Feb. 2*	44	46.28	10									







Stations.

Stations.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Annual.	
	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.	Temperature.	Departure.
Maine.																										
Bar Harbor	15.8	-5.8	21.0	-1.6	30.8	-0.4	40.4	-1.3	57.2	+5.2	58.2	-1.9	64.9	-0.7	64.6	+0.1	56.6	-2.0	50.2	+2.2	39.2	+0.3	29.2	+2.4	44.8	+0.5
Cornish	12.8	-7.2	16.7	-4.7	31.2	+1.9	45.0	+2.2	61.6	+7.0					66.5	+0.3	55.6	-3.2	49.0	+1.5	36.4	+1.3	24.6	+0.6		
Eastport	15.4	-4.7	17.6	-3.8	26.4	-2.5	38.7	+0.4	48.5	+1.6	53.7	-0.7	57.6	-2.2	58.8	-0.9	54.5	-0.7	48.2	+1.6	37.6	+0.8	25.8	+1.6	46.3	-0.1
Farmington	8.2	-6.9	12.6	-4.9	26.4	-3.8	43.4	+1.0	59.0	+4.9	59.2	-3.3	69.2	+1.8	66.3	+1.6	55.0	-3.1	46.9	-0.7	36.2	+3.1	23.0	+5.6	42.1	-0.1
Gardiner	10.2	-7.4	15.5	-4.9	27.2	-3.1	44.6	+1.0	59.8	+4.5	60.6	-4.6	70.4	-0.4	67.8	-0.6	56.5	-3.3	49.2	0.0	38.0	+1.3	24.1	+0.4	43.6	-1.4
Greenville	6.4		10.2		23.2		39.7		54.4		55.6		66.0		62.6		52.2		45.4		32.6		21.0		39.1	
Houlton	9.4		10.4		27.3		40.6		55.7		56.2		65.8		63.4		54.8		45.4		33.4		21.0		39.9	
Lewiston	11.0	-7.2	13.2	-6.7	27.6	-1.2	42.2	+0.4	58.4	+3.8	59.4	-5.0	68.4	-1.1	66.8	-0.3	56.2	-3.0	49.0	+1.8	37.4	+1.7	24.2	+0.8	42.5	-1.4
Madison	6.6		10.0		24.8		41.8		57.4		58.4		69.4		66.0		54.9		45.9		35.4		21.3		40.0	
Millinocket	7.8		11.0		24.6		41.8		57.4		58.4		69.4		66.0		54.9		45.9		35.4		21.3		40.0	
North Bridgton	10.6	-7.8	16.0	-3.4	29.0	+0.1	44.0	+1.1	59.8	+4.9	59.1	-5.5	68.6	-0.9	66.2	-1.0	56.0	-3.8	49.2	+0.1	37.7	+0.7	25.3	+1.6	43.5	-1.1
Orono	11.0	-5.2	17.4	-1.8	29.0	+0.2	43.2	+2.7	57.6	+4.9	59.2	-3.1	68.6	+1.3	65.7	-0.2	55.1	-2.0	48.2	+2.0	37.4	+3.2	24.0	+2.7	42.9	-0.4
Patten	2.6		9.1		40.7		56.6		59.0		67.4		67.0		65.4		51.2		43.6		29.8		14.2		38.9	
Portland	15.0	-7.0	18.8	-5.0	31.0	-1.0	42.9	-0.1	56.6	+3.1	58.8	-3.8	66.7	-1.3	65.4	-0.8	56.7	-2.9	50.2	+1.1	39.7	+2.1	28.0	+0.9	41.2	-1.2
Presque Isle	2.6		6.4		18.2		38.2		51.4		55.4		66.6		67.0		53.6		43.2		28.4		16.2		42.8	
Rumford	10.0	-6.5	14.2	-4.0	27.8	+0.3	43.3	+1.9	58.4	+4.7	59.3	-4.3	69.5	+1.2	66.4	+0.7	55.4	-2.4	48.2	+1.5	36.4	+2.3	24.8	+3.3	42.8	-0.1
Van Buren	2.7		4.9		16.6		36.6		51.2		55.4		66.6		67.0		53.6		43.2		28.4		16.2		42.8	
Winslow	8.5	-9.3	15.4	-3.3	28.7	-1.2	44.8	+3.6	59.8	+6.2	60.8	-1.9	70.5	+2.0	67.7	+2.0	56.8	-2.5	51.1	+3.4	37.6	+3.2	24.2	+3.2	43.8	+0.4

Reference letters indicate number of days missing; a one day, b two days, etc.



Monthly maximum temperatures for the year 1918, with dates.

	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
Stations.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.	Maximum.	Date.
Maine.																								
Bar Harbor.....	41	13	56	24	59	31	68	15	88	18	91	2	90	27	91	14	78	1	72	29	60	1	56	15
Cornish.....	41	6	59	25	67	31	77	2	91 <sup>b</sup>	18	85	2	82	28	94	14	83	4	81	29	57	10	53	23
Eastport.....	42	12	49	26	57	31	63	23	78	18	85	2	82	28	94	14	83	4	81	29	57	10	53	23
Farmington.....	34	8	51	20	58	31	74	30	89	18	88	2	94	27	93	14	80	4	72	29	62	1	49	28
Gardiner.....	42	12	53	25	60	31	71	15	87	18	89	2	93	27	93	14 <sup>f</sup>	78	1 <sup>f</sup>	71	11	60	1	56	28
Greenville.....	34	13	49	25	56	21	71	28	87	18	82	2	90	23	88	14	75	2 <sup>f</sup>	68	29	51	1	47	27
Houlton.....	37	7	45	20 <sup>f</sup>	50	30	70	29	88	20	86	2	92	28	86	15	77	4	68	14	64	1	47	28
Lewiston.....	40	12	51	25	64	31	68	2	88	18	86	2	93	27	94	14	76	2	73	29	54	1	54	21
Madison.....	34	9	52	21	58	31	73	28	90	18	86	3	95	28	93	15	79	3 <sup>f</sup>	71	30	65	1	51	24
Millinocket.....	37	13	48	25	57	30	73	28	89	18	87	2	92	27	89	14	79	2	68	13	54	1	50	23
North Bridgton.....	37	8	55	25	63	31	75	30	87	18	87	2	94	27	93	14 <sup>f</sup>	78	4 <sup>f</sup>	78	28	58	1	55	23
Orono.....	39	13	50	25	62	22	71	28	88	18	89	3	92	24	91	25	78	3	69	6 <sup>f</sup>	60	1 <sup>f</sup>	50	23
Patten.....	40 <sup>c</sup>	19	40 <sup>d</sup>	14 <sup>f</sup>	.....	.....	75 <sup>d</sup>	23	95 <sup>d</sup>	18	90 <sup>e</sup>	4 <sup>f</sup>	96 <sup>d</sup>	23	98 <sup>d</sup>	24 <sup>f</sup>	85 <sup>e</sup>	2	70 <sup>d</sup>	5 <sup>f</sup>	60 <sup>d</sup>	1 <sup>f</sup>	40 <sup>e</sup>	23
Portland.....	42	12	53	15	67	31	71	23	85	6	89	2	94	23	98	24	77	1	76	11	56	1	56	23
Presque Isle.....	34	7	46	25	52	31	70	28	87	18	84	2	93	27	90	14	79	19	73	29	50	1 <sup>f</sup>	50	23
Rumford.....	34	8	51	20	58	31	70	28 <sup>f</sup>	86	18	84	2	93	27	90	14	79	19	73	29	50	1 <sup>f</sup>	50	23
Van Buren.....	37	7	46	25	55	21	70	28	85	18 <sup>f</sup>	82	2	90	27	94	14 <sup>f</sup>	78	3	66	29	51	1	46	23
Winslow.....	39	13	52	20	70	31	71	27	88	19	91	30	94	21	93	14	78	2 <sup>f</sup>	80	1	64	1	51	15 <sup>f</sup>
New Hampshire.																								
Alstead Center.....	39	12	47	20	68	31	71	30	87	13	86	1	90	27 <sup>f</sup>	96	7	76	2 <sup>f</sup>	73	29	59	18	48	15 <sup>f</sup>
Berlin.....	32	12	54	19	60 <sup>a</sup>	31	74	30	87	18	85	2	94	22	90	14 <sup>f</sup>	81	2 <sup>f</sup>	74	29	58	16	51	21
Bethlehem.....	45	12	48	25	59	21	72	28	81	6 <sup>f</sup>	81	1	91	22	90	7	76	2 <sup>f</sup>	72	29	63	18	.....	.....
Concord.....	47	12	52	26	65	31	78	30	88	7	90	2	95	22	95	14	82	4	79	29	58	15	53	21
Durham.....	50	12	55	15	63	31	76	1	89	7	88	2	94	28 <sup>f</sup>	95	16	80	6	78	29	64	7	57	21
Franklin.....	41	12 <sup>f</sup>	55	25	64	31	79	30	88	6 <sup>f</sup>	90	1 <sup>f</sup>	95	22 <sup>f</sup>	97	14	82	2 <sup>f</sup>	77	29	59	1 <sup>f</sup>	56	21
Glencoff.....	37	13	49	26	60	21	71	28	84	7	82	1	91	22	89	7	77	2	72	30	59	17	49	20
Grafton.....	38	12	52	20	62	31	73	1 <sup>f</sup>	85	7 <sup>f</sup>	88	2	95	22	97	7	81	4	76	29	58	1 <sup>f</sup>	52	23
Hanover.....	46	12	53	25	67	31	77	30	88	7	91	1	94	27 <sup>f</sup>	99	7	82	5	81	29	63	18	51	23
Keene.....	49	12	54	15	67	31	77	30	88	6 <sup>f</sup>	90	2	95	23	95	14	80	4	78	29	63	18	.....	.....
Newton.....	30	14	52	26	59	22	68	29	83	20	79	12	88	23	83	15	72	1	67	29	67	1	45	15 <sup>f</sup>
Pittsburg.....	34	12	50	20	60	31	76	27	87	17	88	2	92	21	89	13 <sup>f</sup>	79	4	74	29	55	1	52	21
Plymouth.....	34	12	50	20	60	31	76	27	87	17	88	2	92	21	89	13 <sup>f</sup>	79	4	74	29	55	1	52	21
Vermont.																								
Bloomfield.....	41	13	55	25 <sup>f</sup>	59	21 <sup>f</sup>	75	28	87	18	83	30	95	22	89	14 <sup>f</sup>	80	3	72	29	64	18	48	23
Burlington.....	39	12	47	20	60	31	73	28	84	18	87	1	90	22	91	7	77	2	68	27	63	18	52	23
Cavendish.....	37	12	51	20	60	31	72	28 <sup>f</sup>	87	7	92	1	96 <sup>a</sup>	22	99	7	83	4	74	12	58 <sup>e</sup>	18	46	23
Chelsea.....	38	12	48	20 <sup>f</sup>	58	31	71	28 <sup>f</sup>	85	18	86	1	94	22	90	7	80	4	74	29	58	18	47	23
Cornwall.....	40	12	46	25	60	31	76	28	88	28	92	1	94	22	100	7	81	2	75	11	66	18	52	23
Enosburg Falls.....	41	12	51	25	61	31	76	28	87	18	87	1	94	22	90	23	80	2	74	28	66	18	53 <sup>f</sup>	15
Hyde Park.....	37	12	53	20	61	21 <sup>f</sup>	75	28	86 <sup>a</sup>	17	89	2	95	22	92	7	81 <sup>a</sup>	2	73	29	58 <sup>a</sup>	16 <sup>a</sup>	.....	.....
Northfield.....	37	12	57	20	60	31	71	28	85	27	87	2	93	22	92	7	78	2	74	29	57	18	51	23
Rutland.....	31	12 <sup>f</sup>	46	15 <sup>f</sup>	64	21	73	1	82	7 <sup>f</sup>	87	2	94	22	97	7	83 <sup>a</sup>	4	75	28	70	18	53	13 <sup>f</sup>
Somerset.....	37	12	53	25	60	31	76	28	88	18	86	2	97	22	96	7	80	4	75	11 <sup>f</sup>	60	16	53	21
St. Johnsbury.....	37	12	53	25	60	31	76	28	88	18	86	2	97	22	96	7	80	4	75	11 <sup>f</sup>	60	16	53	21
Vernon.....	36	12	50	15	58	21	68	28	80	7 <sup>f</sup>	85	1 <sup>f</sup>	88	22	95	7	76	4 <sup>f</sup>	70	29 <sup>f</sup>	65	18	54	23
Wells.....	36	12	50	15	58	21	68	28	80	7 <sup>f</sup>	85	1 <sup>f</sup>	88	22	95	7	76	4 <sup>f</sup>	70	29 <sup>f</sup>	65	18	54	23
Woodstock.....	37	12	48	15 <sup>f</sup>	58	31	70	30	87	13	88	1	93	22	96	7	80	4	71	29	62	1	49	23
Massachusetts.																								
Amherst.....	44	12	51	25	69	31	80	30	86	6 <sup>f</sup>	93	1	100	22	100	7	84	4	78	29	62	8	52	21
Blue Hill.....	48	12	54	25	66	31	73	30	87	7	88	1	93	23	91	14	78	4 <sup>f</sup>	74	30	60	18	58	15
Boston.....	54	12	57	15 <sup>f</sup>	69	31	76	1	89	7	92	2	98	23	96	14	81	5	79	29	65	18	63	15
Chestnut Hill.....	50	12	56	25	67	31	78	30	89	7 <sup>f</sup>	93	1	96	23 <sup>f</sup>	95	14	82	4 <sup>f</sup>	78	29	63	1 <sup>f</sup>	60	15
Clinton.....	49	12	54	25	63	21	72	2 <sup>f</sup>	86	27	86	2	92	23	93	7	78	4 <sup>f</sup>	77	29	65	16 <sup>f</sup>	57	21 <sup>f</sup>
Concord.....	49	12	55	25	68	31	78	30	89	7	90	1	94	22 <sup>f</sup>	94	14	81	5	71	29	64	18	59	21
Fall River.....	50	12	51	25	64	21	70	2	82	28	87	2	93	23	90	6	81	6	73	11	63	16 <sup>f</sup>	64	14
Fitchburg.....	48	12	54	25	68	31	78	30	89	7	91	1	95	22	94	14 <sup>f</sup>	81	2 <sup>f</sup>	82	29	65	16	57	21
Framingham.....	48	12	55	25	66	31	78	30	88	7 <sup>f</sup>	93	1	96	22 <sup>f</sup>	95	14	83	5 <sup>f</sup>	79	29	65	1	59	15
Lawrence.....	49	12	54	15	66	31	78	30	88	7 <sup>f</sup>	91	2	97	23	95	14	82	4 <sup>f</sup>	79	29	64	18	56	21
Lowell.....	47	12	55	26	61	31	76	30	86	7 <sup>f</sup>	89	1 <sup>f</sup>	94											



Monthly minimum temperatures for the Year 1918, with dates.

Stations.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.			
	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.	Minimum.	Date.		
Maine.																										
Bar Harbor	-11	28	-14		5	0	4†	24	18	30	5	38	21	47	13	42	19	34	12	29	19	16	26†	-5	31	
Cornish	-30	2	-20	22	-7	16	19	20	32 <sup>b</sup>	5	5					36	18	31	25	24	20	10	27	-5	31	
Eastport	-11	28	-16	5†		0	4	22	18	35	5	5		46	10	36	13	37	11	33	19	16	27	-4	11	
Farmington	-28	3	-22	5	-10	8	20	4†	28	35	5	32	21			35	18	29	11	23	20	12	26	-4	11	
Gardiner	-32	25	-25	9	7	8	22	6†	32	32	5	37	20†			41	18	33	30	28	19	13	27	-1	11	
Greenville	-28	3	-29	5	-10	8	16	10	27	5	33	21	49	10†		37	4	30	11	23	20	8	26†	-6	31	
Houlton	-34	3	-28	2	-27	8	18	10	32	5	31	19	40	2		35	19	30	25	23	24	10	26	-8	11	
Lewiston	-18	28	-21	9	2	12	24	4	34	5	40	21	54	4†		45	18†	36	30	20	8	14	27	-5	11	
Madison	-36	3	-23	22†	-10	8	21	19	25	16	34	21	51	4		38	18	32	11	24	20	13	27	-6	31	
Millinocket	-34	3	-28	11	-22	8	18	11	24	5	31	19	47	4		35	19	30	11	21	23	12	26†	-9	11	
North Bridgton	-27	3	-21	6	3	16	21	4†	31	5	35	21	49	3		41	4†	32	11†	28	19	9	27	0	31	
Orono	-22	2	-19	9	-11	8	21	18	31	5	35	21	51	9†		38	19	31	11	25	19	14	26	-4	11	
Patten	-35 <sup>d</sup>	2	-27 <sup>d</sup>	5†			5 <sup>d</sup>	18	25 <sup>d</sup>	1	28 <sup>e</sup>	20	45 <sup>d</sup>	1†		34 <sup>d</sup>	6	29 <sup>e</sup>	21	21 <sup>d</sup>	14	-2 <sup>d</sup>	29	-15 <sup>e</sup>	31	
Portland	-9	2	-14	5	6	16	26	18	39	5	41	20	52	9		48	18	39	11	34	8	17	27	10	31	
Presque Isle	-34	3	-36	2	-25	8	9	4	24	6†																
Rumford	-24	3	-21	5	-1	12	23	4	32	5	38	21	50	4		40	18	34	11	28	20	14	26	0	11	
Van Buren	-40	3	-40	22	-22	8	10	4†	23	5	28	19	46	31		32	28	27	25	19	17	6	27†	-21	8	
Winslow	-27	2†	-20	5†	-7	8	20	6	30	5	34	21	49	4		34	4†	31	25	26	19	14	26†	-3	11†	
New Hampshire.																										
Alstead Center	-14	1†	-22	5	-2	11	21	3	35	2	37	20	46	3		42	18	33	11	30	4†	10	26	-1	7	
Berlin	-35	2†	-35	5	-9 <sup>a</sup>	15	17	3†	25	4	30	19†	40	2		33	17	27	10	23	7	6	26	-7	10	
Bethlehem	-20	1†	-28	5	-3	11	17	5	28	5	29	20	41	3		35	18	28	11	25	23	5	27	-4	11	
Concord	-14	3	-16	5	2	8	23	20	35	16	36	21	48	3		40	18	32	23	27	19†	13	27	-4	11	
Durham	-15	2	-16	5	-4	8	24	20	33	16	33	21	47	9		42	18†	32	11†	26	23	12	27	-3	31	
Franklin	-23	3	-22	2	-5	16	17	20	29	5	28	20	40	3		34	18	28	11	22	23	6	27	-1	11	
Glenciff	-25	1	-28	5†	-3	11	17	4	30	5	32	20	43	3		35	18	28	11	26	23	6	26†	-2	2†	
Grafton	-32	3	-23	6	-8	16	19	20	29	5	31	20	43	3		38	18	29	11	24	20†	7	27	-1	7	
Hanover	-28	2	-23	2	-4	16	19	6†	30	2	31	20	41	3		36	19†	29	30	23	19†	8	27	-8	7	
Keene	-14	2	-21	2	-6	8	18	20	31	5	29	21	44	4		36	18†	27	11	24	8†	10	27	-15	31	
Newton	-44	28	-41	5	-34	16	11	20	27	2†	26	20	44	3		35	4†	32	26	23	8†	4	26	-15	31	
Pittsburg	-30	3	-20	22	-1	12	18	20	29	5	31	20	46	3		34	18	30	23	21	20	8	27	-1	11	
Vermont.																										
Bloomfield	-39	2	-35	6	-22	11	10	10	24	2	28	20	40	3†		33	18	25	11	22	23	10	26†	-9	11	
Burlington	-24	28	-23	5	-5	11	17	10	32	5	35	20	47	3		40	18	33	11	28	8	14	26	0	31	
Cavendish	-35	2†	-23	9	-8	8†	19	20	28	5	30	20	39 <sup>a</sup>	3		34 <sup>a</sup>	18	28	11	20	20	7	27	-8	7	
Chelsea	-35	2	-27	6	-13	16	16	4†	25	2	27	20	37	3		32	18	25	11	20	8†	1	27	-5	10	
Cornwall	-12	28	-24	5	-5	11	18	10	32	2†	35	20	45	3		40	18	33	11	27	8	13	26	-1	7	
Enosburg Falls	-40	28	-29	6	-19	1†	17	10	27	20	29	20	44	31		35	18	27	11	24	8†	12	26	-13†	31	
Hyde Park	-33	2	-27	5	-8	4	16	10†	25 <sup>a</sup>	5	30	20	41	3		33	18	26 <sup>a</sup>	11	21	8†	4 <sup>a</sup>	27	-4	31	
Northfield	-33	2	-24	5	-4	11	17	20	27	5	28	20	38	3		34	18	27	11	23	19	4	27	-4	31	
Rutland	-25	28	-22	11	-11	11	18	4	28	2	32	20	41	3		36	18	31	11	25 <sup>a</sup>	19†	11	27	-3	7	
Somerset	-31	1†	-24	4†	-3	10	19	4†	28	4	28	19†	35	2		36	18	28	11	24	20	7†	5	26	-3	6
St. Johnsbury	-35	2	-26	6	-11	11†	18	20	28	2†	31	20	43	3		36	18	28	11	24	20	7	27	-5	31	
Vernon	-27	2	-25	2	-6	16	22	6	31	2	38	20	45	3		41	19	34	27	26	19	12	26	-6	7	
Wells	-20	28	-24	5	-6	11	15	4	30	2	32	20	45	3		41	18	32	11	28	8†	7	21	0	7	
Woodstock	-32	2	-22	5	-9	11	18	20	27	5	29	20	38	3		33	18	25	11	20	20	7	27	-6	7	
Massachusetts.																										
Amherst	-20	2	-22	2	-8	11	24	6	36	2	40	20†	45	3		44	19†	34	30	28	23	16	26†	-3	7	
Blue Hill	-7	2	-14	5	6	11	27	5	40	2	41	20	49	9		49	18	40	22	34	19	14	26	7	7	
Boston	-3	1	-10	5	11	11	31	5	44	2	47	20	54	9		53	18	45	11	38	19	19	26	13	7	
Chestnut Hill	-3	1	-14	5	13 <sup>d</sup>	11	19	6	32	5†	37	21	44	9		41	19	31	25	25	23†	10	27	4	7	
Clinton	-7	2	-16	2	0	8	26	20	38	2	41	20†	49	9		44	19	37	11	31	8†	15	26	6	7	
Concord	-14	2	-25	2	-2	8	24	6	34	5	33	21	47	9		42	19†	32	25	25	24	13	27	7	7	
Fall River	-3	2	-10	5	10	11	29	5	42	2	46	20	53	9		52	18†	44	11	37	8	20	26	11	7	
Fitchburg	-8	1†	-15	5	2	8	25	20	36	5	42	20	49	9		44	19	35	11	30	8†	14	26	5	7	
Framingham	-6	2	-14	2	1	8	27	6	37	5	37	21	50	9		44	19	37	25	29	23	15	27	10	7	
Lawrence	-12	31	-22	2	-2	8	25	6	39	2	39	21	49	9		47	18†	37	25	31	24	15	27	8	7	
Lowell	-14	31	-25	2	-4	8	25	6	37	5	39	21	49	9		42	19	36	25	30	19†	15	26†	6	7	
Nantucket	5	2	-6	5	14	11	32	11	42	4	46	2	51	6		52	28	44	11†	40	20	23	26	19	7	
New Bedford	-5	2	-10	5	6	11†	27	5†	39	2	39	21	50	6		53	19	46	12†	25	26	20	26	8	7	
Plymouth	8	2	-6	5	12	4†	31	11	41	5	45	21	55	4†		53	19	46	25	26†	29	20 <sup>b</sup>	26	20	7†	
Provincetown	0	1</																								

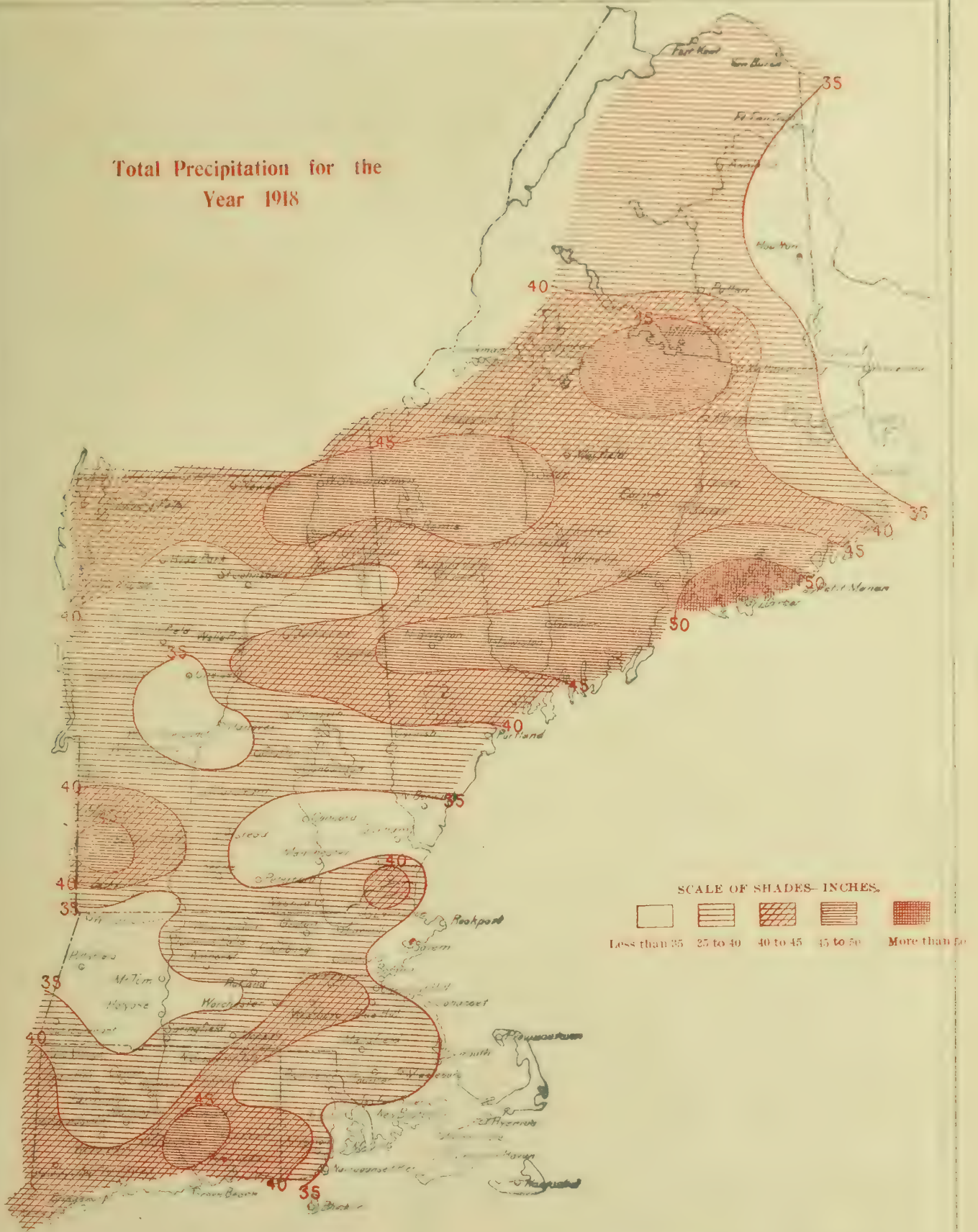


[illegible]

- ⊙ Meteorological observations. (Regular Weather Bureau stations.
- Meteorological observations. (Sub-stations.)
- △ Display or distribution of forecasts.



# Total Precipitation for the Year 1918





## COOPERATIVE OBSERVERS.

Station.	Observer.	Station.	Observer.	Station.	Observer.	Station.	Observer.
<b>MAINE.</b>		Glenciff.....	State Sanatorium.	Brockton.....	City Engineer.	<b>RHODE ISLAND.</b>	
Ashland.....	F. R. Coburn.	Hanover.....	Dartmouth College.	Chestnut Hill.....	Met. Water Board.	Block Island.....	U. S. Weather Bureau
Bar Harbor.....	Mt. Desert Nurseries.	Keene.....	Samuel Wadsworth.	Clinton.....	Met. Water Board.	Bristol.....	N. G. Herreshoff.
Cornish.....	L. W. Pease.	Newton.....	W. C. Gale.	Concord.....	F. A. Tower.	Greene.....	A. K. Greene.
Eastport.....	U. S. Weather Bureau	Pittsburg a.....	Conn. Val. Lumber Co	Fall River.....	C. V. S. Remington.	Hopk Valley.....	H. A. Spencer.
Eustis.....	F. L. Porter.	Pittsburg b.....	Do.	Fitchburg.....	Dr. A. P. Mason.	Kingston.....	Nathaniel Helme.
Farmington.....	W. G. Mallett.	Plymouth.....	Mrs. Hattie G. Trow.	Frammingham.....	Met. Water Board.	Pawtucket.....	A. H. Keene.
Gardiner.....	Samuel D. Soule.			Haverhill.....	City Engineer.	Providence (a)....	City Engineer.
Greenville.....	U. S. Weather Bureau	<b>VERMONT.</b>		Hobbs Brook.....	H. W. Cushing.	Providence (b)....	U. S. Weather Bureau
Houlton.....	B. & A. RR.	Bloomfield.....	L. F. Power Co.	Hyannis.....	Cambridge W. Works.		
Lewiston.....	Union Water Po'r Co.	Burlington.....	U. S. Weather Bureau	Jefferson.....	Barnstable Water Co.		
Madison.....	Wm. Jardine.	Cavendish.....	Colonial Power Co.	Lake Cochituate..	Met. Water Board.		
Millinocket.....	Great N'ern Paper Co.	Chelsea.....	W. F. Dewey.	Lawrence.....	Essex Co.	<b>CONNECTICUT.</b>	
North Bridgton.....	C. L. Chadbourne.	Cornwall.....	C. H. Lane.	Leominster.....	W. H. Hosmer.	Bridgeport.....	Wm. Jennings.
Orono.....	Maine State College.	Enosburg Falls..	J. W. Pomeroy.	Lowell (a, b)....	Prop. Locks & Canals.	Canton.....	G. J. Case.
Patten.....	B. & A. RR.	Hyde Park.....	A. V. Wiswell.	Nantucket.....	U. S. Weather Bureau	Colchester.....	S. P. Willard.
Portland.....	U. S. Weather Bureau	Northfield.....	U. S. Weather Bureau	New Bedford.....	City Engineer.	Cream Hill.....	C. L. Gold.
Presque Isle a.....	Principal High School	Norwich.....	C. W. Brown.	Plymouth.....	Miss L. B. Knapp.	Danielson.....	F. E. Bitgood.
Presque Isle b.....	Maine State College.	Rutland.....	Geo. H. Ross.	Princeton.....	Met. Water Board.	East Hartland.....	D. N. Gaines.
Rumford Falls.....	C. A. Mixer.	Somerset.....	Power Construc'n Co.	Provincetown.....	Manuel M. Cook.	Falls Village.....	M. H. Dean.
Van Buren.....	Rev. J. M. Thomas.	St. Johnsbury.....	Fairbanks Museum.	Rockport.....	U. S. C. G. Station.	Hartford.....	U. S. Weather Bureau
Winslow.....	H. & W. Co.	Vernon.....	Conn. River Power Co	Rutland.....	Cambridge W. Works.	Lake Konomoc.....	N. London W. Works.
Wypiclock.....	Ed. Huff.	Wells.....	E. R. Pember.	State Sanatorium.	Water Works.	New Haven.....	U. S. Weather Bureau
		Woodstock.....	John S. Eaton.	Spot Pond.....	Met. Water Board.	New London.....	T. C. Dillon.
<b>NEW HAMPSHIRE.</b>		<b>MASSACHUSETTS.</b>		Somerset.....	Elisha Slade.	N. Grosvenor Dale.	Grosvenor-Dale Co.
Alstead Center.....	Frank Dewing.	Amherst.....	Mass. Exp. Station.	Springfield.....	U. S. Army.	Norwalk.....	G. C. Comstock.
Berlin.....	Brown Co.	Ashland.....	Met. Water Board.	Taunton.....	Taunton Wa'r Works	Southington.....	L. Andrews.
Bethlehem.....	Benjamin Tucker.	Baker's Bridge.....	J. E. Baker.	Turners Falls.....	Turners Falls Co.	Storrs.....	Agr. Exper. Station.
Concord.....	U. S. Weather Bureau	Bedford.....	C. W. Jenks.	Westboro.....	Miss E. W. Newcomb.	Torrington.....	Supt. of Schools.
Durham.....	N. H. Agr. College.	Boston.....	U. S. Weather Bureau	Williamstown.....	Williams College.	Voluntown.....	J. L. Herbert.
Franklin.....	Gilbert Hodges.	Blue Hill.....	Blue Hill Observatory	Winchendon.....	John Gregory.	Waterbury.....	N. J. Welton.
		Boylston.....	Met. Water Board.	Worcester.....	G. W. Swan.		

## DISPLAYMEN.

Station.	Displayman.	Station.	Displayman.	Station.	Displayman.	Station.	Displayman.
<b>MAINE.</b>		*Portsmouth.....	E. M. Fisher.	*Highland Light..	I. M. Small.	<b>RHODE ISLAND.</b>	
Augusta.....	Custodian U. S. P. O.	*Seaveys Island..	U. S. N., Portsmouth.	*Hull.....	W. S. Richardson.	*Block Island.....	U. S. Weather Bureau
*Bangor.....	C. M. Stewart.	*Wallis Sands.....	U. S. C. G. S.	*Hyannis.....	S. C. Fuller.	*Narragansett Pier..	U. S. Weather Bureau
*Booth Bay Harbor	C. H. McCobb.			*Marblehead.....	Girdler Stacey.	*Newport.....	G. L. Ferrin.
*Eastport.....	U. S. Weather Bureau	<b>VERMONT.</b>		*Monomoy.....	U. S. C. G. S.	*Point Judith.....	U. S. L. S. S.
*Isle of Shoals.....	U. S. C. G. S.	Burlington.....	U. S. Weather Bureau	*Nantucket.....	U. S. Weather Bureau	*Providence.....	U. S. Weather Bureau
Lewiston.....	Union Water Po'r Co.	Northfield.....	U. S. Weather Bureau	*Nantucket S. S.		*Providence.....	R. I. Yacht Club.
*Machiasport.....	W. C. Hanson.			Light-ship.....	U. S. N., Nantucket.	*Saunderstown.....	J. L. Eaton.
*Marshall Point L't	A. P. Skinner.	<b>MASSACHUSETTS.</b>		*New Bedford.....	Wm. A. Coe.	*Southeast Light..	M. A. Clark.
*Portland.....	U. S. Weather Bureau	Amherst.....	Mass. Exp. Station.	*Newburyport.....	H. A. Besse.	<b>CONNECTICUT.</b>	
*Vinalhaven.....	Libby Fish Co.	*Boston.....	U. S. Weather Bureau	*Nobbska Light.....	Nobbska Light Sta'n.	*Bridgeport.....	T. J. Keegan.
*White Head Isl'd.	Ida E. Shea.	*Chatham.....	W. L. Nickerson.	North Plymouth..	Plymouth Cordage Co	*Greenwich.....	Yacht Club.
		*Cuttyhunk.....	U. S. C. G. S.	*Pocasset.....	Wings Neck Light Sta	*New Haven.....	U. S. Weather Bureau
<b>NEW HAMPSHIRE.</b>		*East Chop.....	East Chop Light Sta.	*Provincetown.....	Manuel M. Cook.	*New Haven Light..	Albert Widman.
Durham.....	N. H. State College.	*Fall River.....	Wm. Durfee.	*Race Point.....	U. S. C. G. S.	*New London.....	T. C. Dillon.
		*Gloucester.....	K. A. Geary.	*Rockport.....	U. S. C. G. S.	*Saybrook Point....	A. H. Barber.
				*Sandwich.....	C. C. Canal Co.	*Stonington.....	Stonington L't Sta'n.
				*Tarpaulin Cove..	Jesse Donald.	*Fisher's Isl'd, N.Y.	Fort H. G. Wright.
				*Wellfleet.....	J. E. Crowell.		

Note.—Wireless stations at Boston Navy-yard, Highland Light, Newport Torpedo Station, also repeat to vessels in addition to the wireless stations displaying warnings.  
 \* Stations displaying storm warnings. † Government wireless stations.

## FORECAST DISTRIBUTING CENTERS.

Station.	Distributor.	Station.	Distributor.	Station.	Distributor.	Station.	Distributor.
<b>MAINE.</b>		North Conway-50.	Postmaster.	<b>MASSACHUSETTS.</b>		<b>RHODE ISLAND.</b>	
Augusta-110.....	Postmaster.	Tilton-5.....	Do.	Boston-772-#1050.	U. S. Weather Bureau	Block Island-50...	U. S. Weather Bureau
Eastport-#12.....	U. S. Weather Bureau	Tilton-200.....	Citizens Tele. Co.	Gardner-47.....	Postmaster.	Providence-603....	Do.
Farmington-800....	Maine Tel. & Tel. Co.			Holyoke-22.....	O. C. Ferry.	<b>CONNECTICUT.</b>	
Houlton-2800.....	Aroostook Co. Tele. Co	Brattleboro-375..	Postmaster.	Nantucket-22.....	U. S. Weather Bureau		
Portland-#359.....	U. S. Weather Bureau	Burlington-#121..	U. S. Weather Bureau	Pittsfield-122....	Postmaster.	Hartford-#741.....	U. S. Weather Bureau
		Enosburg Falls-1200	Northern Tele. Co.	Shelb'ne Falls-1650	Heath Tele. Co.	New Haven-1020..	U. S. Weather Bureau
<b>NEW HAMPSHIRE.</b>		Ludlow-130.....	Ludlow Tele. Co.	Vineyard Haven-6	Martha's Vineyard		
Concord-300-1200..	U. S. Weather Bureau	Northfield-#130..	U. S. Weather Bureau	Tele. Co.	Tele. Co.	Sharon-400.....	Sharon Tele. Co.
Manchester-194....	Postmaster.	Readsboro-100....	Postmaster.				
Meredith-375.....	Winnepesaukee Telephone Co.	Springfield-175..	Springfield Local Tele. Co.				

Figures indicate number of forecast cards mailed daily from distributing center. \* Number of Weather Maps or Bulletins mailed daily. † Rural Free Delivery slips.























